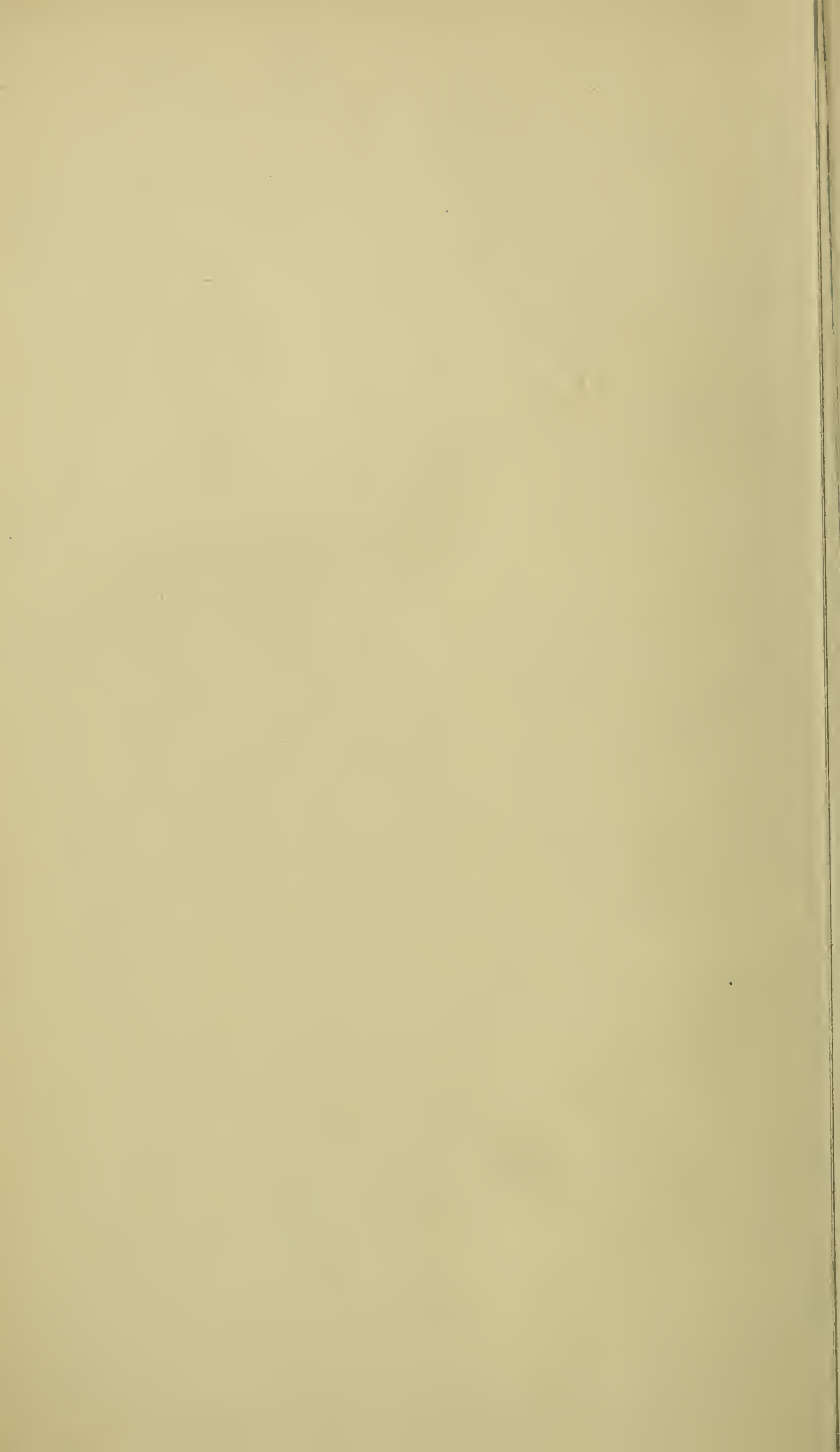

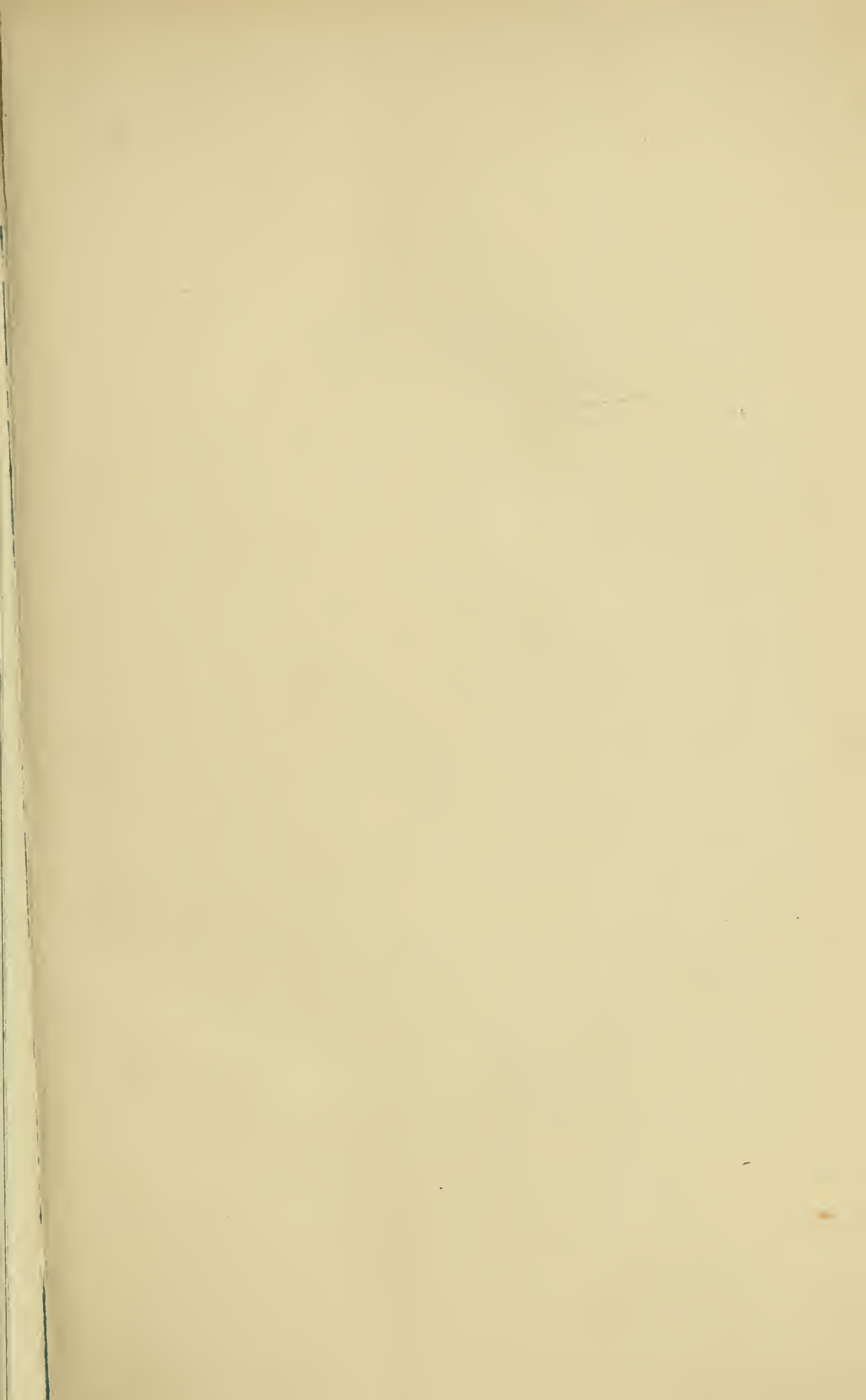

ASYLUM HOSPITALS.

The accompanying plate should have been bound up in the July number of the "Journal of Mental Science" as an illustration to Dr. Richard Greene's article on "Asylum Hospitals" (see July number, 1888, page 177). Owing to delay in delivery, the number was issued without it.

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THE JOURNAL

OF

MENTAL SCIENCE

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EDITED BY

D. HACK TUKE, M.D.,
GEO. H. SAVAGE, M.D.

26186
6/12/92

"Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et radii (ut in sensu fit) coire possint."

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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MDCCCLXXXIX.

"In adopting our title of the *Journal of Mental Science, published by authority of the Medico-Psychological Association*, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the terms, mental physiology, or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid, for although we do not eschew metaphysical discussion, the aim of this Journal is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease, are not less questions of mental science in its practical, that is, in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our Journal is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanician uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow men, may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science, with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study."—*J. C. Bucknill, M.D., F.R.S.*

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PART 1.—ORIGINAL ARTICLES.

On the Present State of Lunacy Legislation in Scotland; a Historical Note of Warning. By JAMES RORIE, M.D., Royal Lunatic Asylum, Dundee.

(*Read at Meeting of Medico-Psych. Assoc., held in Edinburgh, Nov.* 10, 1887.)

The object of the present paper is to bring under the notice of this meeting the present state of Scotch Lunacy Legislation, especially as it affects our Chartered Asylums. For some years back efforts have from time to time been made to introduce various Bills into Parliament, calculated, more or less, to interfere with the present position of these institutions, and during the past Session one of these Bills has passed into law. It was evident to those who took any interest in this measure, that a strong feeling existed in regard to the extent to which Parochial Boards had control over their patients, and it was evident, sooner or later, that more extensive and more comprehensive legislation would ere long be forced on the notice of the public. That we should be prepared for this, it seems very desirable that we should know exactly our position, or how existing institutions are likely to be affected by such legislative efforts. But to understand this thoroughly, it will be necessary to consider the changes which have taken place in the Statutes affecting lunacy in Scotland since these were enacted in 1857, and this I will now do as briefly as possible.

It is unnecessary to go minutely into the origin of the Lunacy Act of 1857. Shortly, it may be stated as follows: Public attention having been directed to the treatment of the insane, and especially the insane poor, in private asylums, a Royal Commission was appointed to examine into the whole subject, and their report confirming in a great measure the grounds for complaint, the Lunacy Act of 1857 was passed,

whereby the management of the insane poor was in a great measure transferred from Parochial Boards and placed in the hands of Independent Boards, chosen out of the Prison Boards elected by the Commissioners of Supply and Magistrates of Burghs. These District Boards were empowered to erect and manage the district asylums wherever it was found necessary to provide them. But at the time of the passing of this Act certain asylums were already in existence, which had been discharging for many years the functions of the district asylum, but on the footing of hospitals and charities, and so in order to protect these institutions, certain clauses were introduced into the Act, preserving the independent management of these establishments and arranging for the District Boards of the counties in which such institutions existed to contract with these Royal or chartered asylums, to the extent of the available or possible accommodation, before proceeding to assess for the erection of district accommodation. Forfarshire was in the unique position of having within its boundary two such asylums, those of Montrose and Dundee, affording ample accommodation for the whole county.

It is of importance that this transference of the care of the insane poor from the Parochial Boards to Independent Boards, specially elected for the purpose, should be kept carefully in view, for it is from this that much of the subsequent Lunacy Scotch Amendment arose, in the efforts from time to time made by the Parochial Boards, to recover the control of the insane poor of which they were then deprived. But it is of importance also that we should clearly understand what patients or persons were comprehended under the term lunatic, previous to the passing of the Act of 1857, and we find valuable information on this and similar subjects in the report of the Royal Commission, published in that year. From this it would appear that the insane poor were regarded as divisible into three varieties—the insane, the fatuous, and the weak-minded; and in the Poor-Law Amendment Act 8 and 9 Vic., c. 33, it was enacted that "whenever any poor person, who shall have become chargeable on any parish or combination, shall be insane or fatuous, the Parochial Board of such parish or combination shall, within 14 days of his being known to be insane or fatuous, provide that such person shall be lodged in an asylum or establishment legally authorized to receive lunatics;" but

the weak-minded persons were regarded as suitable to be placed in poor-houses, as they were regarded as among the persons for whose accommodation such buildings were erected. But it seems, farther, that with the consent of the Board of Supervision, Parochial Boards might have the power of dispensing with the general rule of sending pauper lunatics to asylums, when they were of opinion that such lunatics did not require to be confined, and to provide for them in such other manner as should be sanctioned by the Board of Supervision. Doubts and uncertainty, however, existed as to these powers, and as these doubts were never authoritatively settled, they unquestionably led to the unsatisfactory results which the investigations of the Royal Commission laid bare, or at least largely contributed thereto. But again we find that "until the passing of the Act for the amendment of the laws relating to the relief of the poor, in 1845, there were comparatively few poor-houses in Scotland. Those existing, however, seem to have been all, more or less, in the habit of receiving insane or fatuous paupers, without any warrant from the Sheriff." The practice thus established, was in some instances continued to the date of the examination by the Royal Commission, so that at the time of their inspection, in some of the larger poor-houses "a considerable number of insane and fatuous patients were found, none of whom were under warrant" (p. 128). Again, "After the passing of the Poor-Law Act many new poor-houses were erected, chiefly with a view of affording a test for poverty, and thus diminishing the amount of out-door relief." And in these poor-houses many of the Parochial Boards provided or set apart accommodation for the insane poor, in the expectation of saving expense and avoiding the necessity of sending them to public asylums or licensed houses or private asylums. In some poor-houses these patients were mixed with the ordinary poor, in others separate wards were provided for the insane. When mixed with the ordinary poor, the patients were generally of the harmless and imbecile class, but where there were separate wards all sorts of cases, recent and chronic, were received; and the wards thus appropriated for them became in a measure lunatic asylums.

But it would appear that legally it remained with the Sheriff of the county to determine what kind of cases might be received into the poor-houses, although the practice

varied in different counties. Some ruled that only harmless and incurable cases should be admitted to poor-houses, others trusted to the cases being selected by the Board of Supervision, and so abuses gradually crept in. The Sheriffs seem generally to have relied too much on the certificates of the parochial surgeons. Thus, though in one county "the certificate granted by the parochial surgeons declares that the patient is incurable and harmless, and not in a condition to be benefited by being sent to an asylum," the Royal Commission found it to be not an uncommon practice in that county to send recent cases to the poor-houses, to retain them if quiet and manageable, and to send them to asylums only when they became refractory and violent. Indeed, they were informed that the very cases sent away were principally those that were incurable and unmanageable, and that recent cases in which there was hope of improvement were retained, to save cost of transmission and the greater cost of maintenance in an asylum (p. 131).

But in some poor-houses, insane and fatuous paupers were received without any license from the Sheriff, and in one it was found that the patients were admitted not only without a license, but even without a medical certificate. The Report, indeed, points out that there was "scarcely a poor-house in the kingdom in which there was not several insane persons who have been irregularly admitted in the same way. The cases thus received were not by any means always harmless, nor of such long standing as to be considered incurable. On the contrary, they were frequently violent and occasionally recent. Such cases were most commonly found in those poor-houses in which ostensibly only incurable and harmless patients were received. It was a common practice, for instance, to send an individual who had been suddenly seized with mania to the poor-house for temporary care, with the intention of transmitting him to an asylum as soon as the necessary arrangements were made. But when once he was placed in the poor-house it was not unusual to detain him there until it was seen what form the malady would assume" (p. 133).

Another matter closely bearing on this, and to which the Royal Commission specially directed attention, was the question—Who were entitled to remove unrecovered patients from asylums? At the time of their investigations "the person by whom the patient had been placed in the asylum,

and who was responsible for the payments, alone possessed the power to remove him before recovery, which he might do in opposition to the opinion of the medical superintendent; and in regard to pauper patients, the custom of the medical superintendents of the chartered asylums was to refuse every application for removal in such cases, even by the friends and relatives of the patient, unless made by the inspector himself. This was by no means universal, however, "but it was a frequent custom of inspectors themselves to remove patients even against the most strongly expressed opinion of the medical officer of the asylum. In so doing they acted on their own responsibility, or on that of their Parochial Boards, and independently of any authority derived from either the Sheriff or Board of Supervision. In this way large numbers of patients, including many of very dangerous character, were removed from the chartered asylums to licensed houses, private asylums, poor-houses, or their own homes. The motive for removal was solely that of economy" (p. 221). And they further pointed out that "the inspectors of the poor, acting in the name of their respective Parochial Boards, practically assume an unwarrantable power over pauper patients; in keeping them at home or placing them in the houses of strangers, in selecting asylums for them, in removing them from asylums, in transferring them from one asylum to another, and generally in contravention of the Statutes, from a public asylum to a licensed house, and in transporting them, when English or Irish paupers, to the country of their birth. Neither the Board of Supervision, the Sheriff, nor the managers or medical superintendents of chartered asylums, who may collectively be considered as the guardians of the insane poor, practically exercise any check on this inordinate power assumed by inspectors" (p. 253).

Now these particulars are instructive. They represent the evils which the Act of 1857 was passed to correct, but all history shows that social states and conditions are very apt to move in circles, and it seems to be a question well worthy of consideration, whether under the recent lunacy amendments we are not rapidly drifting back into the original state of matters. The patients chosen for the lunatic wards of the Dundee poor-houses, although certified by the parochial medical officer, are virtually selected by the governors of the poor-houses and the inspector of poor, and

in this selection they are guided almost entirely by the consideration of the manageableness of the patients. At the time of the Royal Commission inquiries, the means of providing for the insane poor consisted of three sorts—chartered asylums, private asylums, and wards attached to certain of the larger poor-houses; and one of the first difficulties experienced by the Scotch Lunacy Board was to ascertain how far the last of these were legally to be regarded as public asylums or statutory accommodation for detaining the insane poor, and how far they could be looked on as permanent accommodation. On the subject of lunatic wards of poor-houses, the Board of Lunacy gave no uncertain sound—for in their earliest records it was clearly pointed out that such were not then regarded as permanent means for the treatment of lunatic poor. In considering the meaning of the term public asylum, in their first report, at page 7, it is stated: "We are of opinion that the lunatic wards of poor-houses could not be comprehended under this definition, and in this view we were confirmed by the opinion of eminent counsel." And in farther considering how far they had power to license such lunatic wards, it is said (p. 8): "All doubts as to the powers of the Board on this head were removed by a short Amendment Act passed on 2nd August, 1858, by which we were empowered to grant licenses for the reception of pauper lunatics into wards of poor-houses for a period of five years, from 1st January, 1858, as it is expedient that provision should be made for the custody of pauper lunatics till district asylums are ready for their reception." And the report continues: "It thus follows that the term existing accommodation is applicable only to public and private asylums, but as the licenses to private asylums receiving paupers are granted only until district asylums are provided, the term 'existing' accommodation is practically limited to that afforded by public asylums." This opinion, however, was not acquiesced in by certain parishes, as it was claimed for the Edinburgh City Poor-house and Barony Poor-house, Glasgow, that they were included as existing accommodation, and although the Barony Parish applied for a license for their wards they did so "on the stipulation that this step shall not be held as implying an abandonment of their claim."

But the view then entertained by the Board of Lunacy is even more clearly brought out in their remarks on poor-

houses (p. 64). Considering lunatic wards of poor-houses as a mere temporary measure, they refused the application of the Dundee Parochial Board, to license part of their poor-house for the reception of fatuous cases, and wrote as follows: "We desire particularly to direct attention to the fact that the Legislature draws no distinction between the different classes of lunatics, and does not in the remotest manner countenance the view that poor-houses are to be considered and licensed as proper places for the reception of incurable or harmless lunatics. The only reason assigned for conferring on the Lunacy Board the power to license these wards at all is, that they may be available for the reception of patients until the district asylums are erected. Accordingly we are clearly of opinion that we would be departing from the course traced out to us were we to license any poor-house in a district in which there was already sufficient asylum accommodation, and it was on this account that we refused to grant a license to the poor-house of Dundee on the application of the Parochial Board of that parish. But, apart altogether from the instructions conveyed or implied by the preamble of the Amendment Act, we entertain the firmly rooted conviction, founded on our experience of the nature and management of the lunatic wards of poor-houses which we have seen in operation, that the extension of this form of accommodation for the insane poor is very far from being desirable, and it was with great unwillingness that, yielding to the pressure for accommodation, we granted our licenses to poor-houses even in those districts in which the necessities of the public imperatively demanded the concession. At the same time we must explicitly declare that we are very far from holding the view that all the insane poor should be placed in asylums, if these establishments are all to be included under one category and conducted in the manner that has hitherto prevailed. On the contrary, we admit that it may be expedient to provide different kinds of accommodation for patients affected with different forms of insanity, and we have advocated this view in various preceding parts of this report. We are, however, most decidedly of opinion that it is not desirable that any class of the insane poor should be placed in establishments under the immediate jurisdiction of Parochial Boards." And as a sort of explanation of this view they add: "The lunatic wards of poor-houses owe their origin, not so much to any

wish to provide for the proper care and treatment of the insane poor, as to the idea that their institution would involve a saving to the parish. We are desirous to give all due weight to the argument of economy, and we, therefore, at once admit that it is the duty of the Parochial Board to provide for the insane poor in the cheapest manner consistent with the proper care and treatment of the patients. There is, however, only too much reason to fear that economy obtains from Parochial Boards more than its due share of consideration, and consequently that the interests of the patients are too often sacrificed to those of the ratepayers" (p. 65). It is of the utmost consequence that the views entertained and the position then taken up by the Legislature should be thoroughly understood, because it is the clue to all the subsequent changes which have been effected, and that principally by parochial influence, by the various Amendment Acts.

As early as 1860, it would appear that the system of licensing lunatic wards was looked upon with greater favour, for in the second report of the General Lunacy Board, at p. 90, it is said that "Although desirous to see the practice checked of converting the wards of poor-houses into substitutes for asylums" they were not prepared to recommend that the power of licensing wards in poor-houses should be altogether withdrawn from them, as the accommodation which some of them afforded was "sufficiently appropriate, and the spirit displayed by the Parochial Board sufficiently liberal to warrant their being continued under certain restrictions." "We would, however, propose that they should be licensed for the reception of selected cases only." This question was, however, further complicated by the doubt which arose whether patients not in asylums (especially apparently the fatuous and weak-minded) should be regarded as lunatics at all, or whether they should not be handed over to the care of the Board of Supervision. We accordingly find the Board of Lunacy (p. 4, 1861) writing: "By Statute our Board is made responsible for the proper care and treatment of all pauper lunatics who it is enacted shall be sent to the asylum for the district in which the parish of the settlement of such pauper lunatic is situated; but we are at the same time authorized to permit a Parochial Board to dispense with the removal of any pauper lunatic to an asylum, and to provide for him in such other manner and under such regulations as

to inspection and otherwise as we may sanction;" and they suggest that "all dubiety on this point would at once be removed by making the definition of lunacy include any person certified by two competent medical men to be a lunatic, an insane person, an idiot, or a person of unsound mind."

This was given effect to in the Interpretation Clause of the Amendment Act of 1862 (25 and 26 Vic., Cap. 54), the same Act which rendered legal the opening of lunatic wards of poor-houses for the reception and detention of such pauper lunatics only who are not dangerous and do not require curative treatment. The importance of the changes here introduced cannot be overrated. In the first place the definition of the term lunatic in the Act of 1857, and which, based on the Scotch law, meant and included "any mad, or furious, or fatuous person or person so diseased and affected in mind as to render him unfit, in the opinion of competent medical persons, to be at large, either as regards his own personal safety and conduct or the safety of persons and property of others, or of the public," was changed so as to include "every person certified by two medical persons to be a lunatic, an insane person, an idiot, or a person of unsound mind," terms evidently taken from the English Lunacy Statutes, and having no meaning as interpreted by Scotch Law, and the existence of these mental conditions were to be established, not by the state of the patient, but by the certificates of two medical men; and, in the second place, poor-houses, which were originally built for the poor and weak-minded, were to have wards specially and permanently set apart for the reception of the insane and fatuous, hitherto regarded as proper occupants of lunatic asylums; but only when these were found not to be dangerous and not to require curative treatment.

We accordingly find that one of the principal subjects referred to in the Commissioners' Report of 1863 was the permanence given to the lunatic wards of poor-houses by this Statute. Thus, at p. 46, they write: "The disposal of the insane poor in lunatic wards attached to poor-houses, which hitherto has been a question of only temporary importance, from the period of their legal recognition having been limited by the Legislature to five years from 1st January, 1858, has now become one of much greater moment from the permanent character given to such accommodation by the Lunacy Amendment Act of last Session." "By the

3rd Section of this Act," they write: "we are authorized to license lunatic wards in poor-houses for the reception and detention on the order of the Sheriff of such pauper patients only who are not dangerous, and do not require curative treatment, subject to such rules and conditions as the Board may prescribe; but it is also provided that we may, if we shall be satisfied that good reason exists therefor, continue all licenses that have already been granted to lunatic wards of poor-houses," and the 4th Clause of the Act "empowers us to sanction the reception of pauper lunatics into lunatic wards of poor-houses without the order of the Sheriff, according to forms, and subject to regulations approved of by the Board." But while the Board are careful to point out that "it is thus clearly enacted that all future licenses to lunatic wards of poor-houses not already licensed shall authorize the reception *only* of such patients as are not dangerous and do not require curative treatment," they seemed to think an exception against such restriction existed in the case of poor-houses already possessing licenses for the reception of patients suffering from all forms of insanity, and afterwards officially known as parochial asylums, such as the Abbey and Burgh parishes of Paisley, Barony, and city parishes of Glasgow, and the parishes of Greenock and Falkirk. But while acknowledging the powers, as it were, thus forced upon them, the Board continue to deplore the distinction attempted to be drawn between patients who are not dangerous and do not require treatment, and those who, beyond all doubt, belong to the opposite category, inasmuch as such attempts tend to encourage the belief that safe detention is all that is required for the proper care and treatment of the former class. "No idea," they write, "can be more unfounded and none more pernicious to the welfare of the insane. Under judicious management and provided with proper means of occupation, the great mass of the insane are capable of being actively and usefully employed, and in a manner calculated to afford them positive enjoyment in life. In these respects there is no difference between the so-called dangerous and non-dangerous class, or between the curable and incurable. It follows, therefore, that before we can separate patients into distinct categories, for which different kinds of accommodation should be provided, we must regard the incurable as beyond the pale of humane and enlightened treatment. Such a

result would be most deplorable, but it is one which is directly encouraged by the system of attaching lunatic wards to poor-houses. The chief motive of Parochial Boards in providing such accommodation is undoubtedly economy. They are of opinion that the rate of maintenance in poor-house wards will be less than in asylums, but this belief can be realized only by limiting the appliances of treatment and restricting the comforts and enjoyments of the patients, or by selecting only those patients who require no special attendance, nor any particular care." In the sixth Report of the General Board we find all lunatic wards of poor-houses admitting patients for curative treatment formally recognized under the name of parochial asylums, and by this term they have ever since been known; and from the same Report we learn that although it was expressly enacted that the lunatic wards of poor-houses were licensed for the reception of such patients only as were not dangerous and did not require curative treatment, yet a table is given showing that in 1863, 14·3 per cent. of the male, and 10·6 per cent. of the female admissions into these wards were discharged recovered. So early did this piece of legislation from this point of view prove a failure.

But other signs of defective legislation soon appeared. In the seventh Report the important fact is referred to that "in the ordinary wards of poor-houses" there were "many paupers who, in a medical point of view, ought to be intimated to the General Board as lunatics, and to this fact they directed the attention of the Board of Supervision; but as the Statute declared that the term lunatic shall mean and include any person certified, said the Board did not consider itself called on to consider as lunatics such paupers as have been placed in poor-houses through inability from mental disease or incapacity to take care of themselves, and who are persistently detained notwithstanding their request to be discharged, provided they have not been certified as insane in terms of the Statute." So early do we find the altered definition leading to results only to have been expected.

In Forfarshire the development of the lunatic-ward system received an impetus from the transition state in which the Dundee Asylum then was, for although there was ample accommodation for all the pauper lunatics in that county in the Montrose and Dundee Asylums, yet the Dundee parishes were put to considerable inconvenience in consequence of the

want of convenient accommodation in the Dundee Asylum, the directors of this asylum being unwilling to increase their accommodation in view of having shortly to remove the whole buildings to another site. This was used as a lever for the establishment of lunatic wards, by the parishes interested, and at last successfully; although with great reluctance on the part of the General Board, who were further constrained to grant their license by the want of a regular contract between the District Lunacy Board of the asylum. "Had a contract existed," they wrote (p. 10), "binding the asylums to receive all the pauper lunatics of the district, the necessity of providing accommodation in lunatic wards of poor-houses would probably not have been felt, and this retrograde measure might then have been avoided." Be that as it may, the licensing of these wards retarded the erection of the Dundee New Asylum by at least ten years.

And now the steadily increasing accumulation of the pauper insane in asylums and lunatic wards of poor-houses began to attract attention, for although the boarding-out of patients in the country with relatives and strangers was much discussed, up to the last few years but a very small percentage of the insane had been thus disposed of, as will be seen from the accompanying tables. These tables have been rearranged chiefly from the General Board of Lunacy Reports, because, according to the tables there published, in the earlier reports patients in parochial asylums are classed under the lunatic wards of poor-houses, in the later reports under public and district asylums.

From this it will be seen that between the years 1859 and 1888 the number of pauper patients in Scotland has risen from 4,737 to 9,406; that the number of these patients placed in district and chartered asylums has risen from 1,594 to 4,965; that the number of those in institutions under the immediate management of Parochial Boards, namely, lunatic wards of poor-houses and the so-called parochial asylums, has increased from 833 to 2,301, of the latter number 857 being in lunatic wards of poor-houses, and 1,444 in parochial asylums. That of the 526 pauper lunatics in private asylums in 1859 none have been so disposed of since 1877. But while 33·4 per cent. of the pauper patients in 1859 were boarded out either with relatives or strangers or were staying alone, this percentage fell steadily to the year 1880, when it reached only 17·9 per cent., and has since been rising again till it

reached 22·7 in 1887. There can be no doubt that the decrease in the percentage of patients boarded-out was in a great measure the cause of the increase of patients in asylums, and it is interesting to consider the means devised for lessening this accumulation. These were principally introduced in the Act of 1866, and the first that deserves notice is that curious Clause 7 of 29th and 30th Vic., c. 51, whereby the detaining power of the Sheriff's warrant after three years can only be continued by an annual certificate granted by the medical officer of the asylum. It will be within the recollection of many of us that this clause was so little regarded as necessary by the officers of asylums that when the Act was passed many omitted to grant the necessary certificate, and so additional Parliamentary power had to be obtained to render the detention of many patients legal; and in the following year the Commissioners report "that the certificates were regularly granted, and in no single instance has a patient been discharged from an asylum through the refusal of the superintendent to certify that he was a proper person to be detained."

This was in a great measure only to be expected. For my own part, as yet no patient has ever left the Dundee Asylum through the operation of this clause, because, holding as I do that a superintendent of an asylum in Scotland is only justified in detaining a patient so long as he is a lunatic in terms of the common law of Scotland, as soon as he ceases to be dangerous to himself or others, or offensive to public decency, as the case may be, and that however weak-minded he may be, otherwise he ought to be discharged, and so to my mind this clause has always appeared useless. Indeed, the introduction of this clause would appear to have been an attempt to imitate the French practice, "where the magisterial authority expires every six months, but with this difference, that whereas in France the prolonged authority to detain a patient is, or was, every six months, a new magisterial act in Scotland, it is simply a continuation of the original order." It appears to me that it would have been much sounder legislation to have made the determination of the Sheriff's order complete after three years, and the renewed detention possible only under new and independent certificates and Sheriffs' orders.

Another and more important means for lessening the accumulation of pauper cases in asylums was the power con-

ferred on Parochial Boards by Sect. ix., 29 and 30 Vic., c. 51: "At a duly constituted meeting to direct that any pauper lunatic (not being a lunatic committed as a dangerous lunatic), with whose maintenance it is chargeable, and who is detained in any asylum or house, shall be discharged or removed therefrom," unless this is stopped by the superintendent appealing to the General Board of Lunacy that the patient is dangerous or otherwise unfit; and by Sect. ix., 29 and 30 Vic., c. 51, conferring similar powers on Parochial Boards to remove from the poor-roll any pauper lunatic in any asylum or house for whose maintenance it is responsible, and to entrust the disposal of such lunatic to any party who shall undertake to provide in a manner satisfactory to the Parochial Board for his care and treatment subject to the same restrictive action on the part of the superintendent as above.

But it cannot be said that these various means of procedure at first tended much to lessen the accumulation of the insane poor, as from the Commissioners' Report for 1874 we find that while 128 private patients and 21 paupers were removed from asylums by the friends, 99 only were removed by minutes of Parochial Boards. Of late years these have been more numerous. In 1886 126 private patients were removed by friends and 411 by minute of Parochial Boards; 256 remaining pauper lunatics and 156 being removed from the poor roll, when in 1887 the corresponding numbers were 122 private and 370 paupers so removed, 204 remaining pauper lunatics.

But another question now presented itself for consideration, namely, in what light ought the parochial asylums to be regarded, and the erection of the Lenzie Asylum forced this on the notice of the authorities. In referring to Glasgow District and the increased accommodation provided by Lenzie, and the probable means of further extension, the Commissioners (17th Report) write: "Such accommodation may be provided either by Parochial Boards in parochial asylums or lunatic wards of poor-houses, or by the Directors of the Royal Asylum in an extension of Gartnavel, and failing either of these courses being adopted, it will be incumbent on the District Board to erect a new district asylum. The approaching opening of the New Barony Parochial Asylum has led us to consider very seriously the position occupied by parochial asylums. Hitherto these

institutions have stood in a subordinate position, being, as it were, mere portions of the poor-house, and under the same management. This new asylum, however, constitutes a complete independent establishment. It is situated at a distance of several miles from the poor-house, is larger than any of the district asylums hitherto erected, and possesses a greater extent of land than any of the district asylums, with the exception of those of Inverness and Argyll. In theory, however, the asylum remains part of the poor-house. Again, it is a question whether a Parochial Board, which is annually elected, and which does not possess the same elements of stability as a District Board, will be found well calculated for the proper management of an establishment which has so different a sphere of usefulness from that of a poor-house, and which, instead of being used as a test for poverty, must be conducted on the principles of liberality, which the treatment of the insane demands." Whatever answer was found to this, there can be no doubt that the erection of the Lenzie Asylum was an eminently successful step, from the parochial point of view, in enabling the Barony Parish to retain the complete management and control of all their patients, and no doubt incited other parishes to the same line of action. But the erection of these parochial asylums led to results which did not seem to have been foreseen, namely, that before being free from assessments for the erection of district asylum accommodation, these asylums would have to secure the position of being district asylum accommodation, and the Parochial Boards managing them be constituted District Lunacy Boards. It was this difficulty that led the Barony Parish to apply to Parliament during the past Session for *inter alia* powers, that for the purposes of the Act of 1857 the Barony Parish should be disjoined from the Glasgow District, and should form a separate district; that the Woodilee Asylum should be a district asylum for that district with the Parochial Board, with respect to the Barony District, to be the District Board as defined by the Act of 1857. The necessity for this Bill was superseded by the introduction of the District Lunacy Bill, which passed through Parliament, and which provides that the General Board of Lunacy shall have power, on the application of the Commissioners of Supply of any county interested, or the magistrates of any burgh interested, or the Parochial Board of any parish or combination interested, to alter or vary the said districts,

either by combining or dividing counties, or parts of counties, and where any such altered or varied district shall consist of one parish only, to appoint the Parochial Board of such parish to be the District Board of such district. We have here the concession desired by the Barony Parish granted, subject to the approval of the General Board and sanction of the Secretary of State. This will no doubt satisfy the large western parishes, but there are signs already making themselves visible that other Parochial Boards are not satisfied, and that especially where they are concerned with chartered asylums a strong feeling is being manifested that they should have something to do with the management of these institutions by being represented on their directorate. Whether such an addition to the asylum managers would really affect the functions of these institutions must be regarded as very doubtful; but it would certainly be one step further in conceding to the Parochial Boards the control of their patients which it was the object of the original Act of 1857 to guard, and it may well lead us to inquire whether these continued concessions, which have characterized every Amendment Act since 1857, are not calculated to break down the whole protective features of that Act. It seems clear that further legislation, and of a much more comprehensive character than we have had since 1857, will soon be attempted, and it will be well for all connected with chartered asylums, if not also the district asylums, to be ready to act. One point seems certain—the question of how to provide for the gradual accumulation of the chronic insane is one which will soon force itself on public attention. The attempt to meet this by the system of lunatic wards in connection with poor-houses, as practised in Dundee, seems to me little better than a violation of the principles of the Act of 1857. I have elsewhere pointed out that the patients selected for removal, are in many instances those who would benefit most by being left in the asylum, and that in other instances many are removed before their curability can have time for being tested, and further that the principle which regulates their selection being merely that of their manageableness has led to the shuttlecock treatment of many cases to which reference has been made in the last report of the Dundee Asylum.

Appended are three tables of interest in connection with the above remarks :—

I.—Distribution of Pauper Insane in Scotland.

Year.	Total number of Pauper Lunatics.	In Chartered and District Asylums.	In Parochial Asylums.	In Lunatic Wards of Poor-houses.	In Private Asylums.	Boarded with Relatives.	Boarded with Strangers.	Staying alone.	Per cent. in Chartered and District Asylums.	Per cent. in Lunatic Wards of Poor-houses and Parochial Asylums.	Per cent. Boarded out and with Relatives.
1859	4737	1594	—	833	526	1135	358	91	33·6	17·6	33·4
1860	4980	1687	—	795	621	1482	330	65	33·9	15·9	37·7
1861	5226	1859	—	864	656	1432	354	61	35·5	16·5	35·3
1862	5257	1946	—	841	683	1384	328	75	37·0	16·0	34·0
1863	5289	2020	—	838	690	1338	334	69	38·2	15·8	32·9
1864	5283	2019	—	878	707	1274	343	62	38·2	16·6	31·8
1865	5320	21C2	490	420	671	1226	361	50	39·5	17·1	30·7
1866	5392	2299	497	428	559	1168	389	52	42·6	17·1	29·8
1867	5490	2354	436	572	560	1133	384	46	44·9	18·3	28·6
1868	5594	2607	440	558	441	1081	417	50	46·6	17·8	27·7
1869	5745	2950	437	570	267	1067	414	40	51·3	17·5	26·5
1870	5994	3163	451	573	307	1031	433	36	52·7	17·1	25·0
1871	6197	3547	553	574	54	986	446	37	57·2	18·2	23·7
1872	6286	3572	544	630	77	963	461	39	56·8	18·7	23·2
1873	6368	3609	561	615	94	960	496	36	56·6	18·4	23·4
1874	6472	3676	670	556	82	930	519	39	56·8	19·0	22·9
1875	6529	3698	748	565	77	875	562	—	56·6	20·1	22·0
1876	6661	3934	760	573	7	843	544	—	59·1	20·0	20·8
1877	7191	4083	1038	651	1	858	560	—	56·8	23·5	19·7
1878	7425	4304	1092	644	—	857	528	—	57·9	23·2	18·7
1879	7690	4496	1139	657	—	868	530	—	58·4	23·4	18·2
1880	7889	4569	1229	676	—	855	560	—	57·9	24·1	17·9
1881	8238	4666	1342	714	—	906	610	—	56·6	24·9	18·4
1882	8575	4939	1350	718	—	950	618	—	57·6	24·1	18·3
1883	8710	4924	1377	716	—	916	777	—	56·5	24·0	19·4
1884	8889	4961	1398	719	—	949	862	—	55·8	23·8	20·4
1885	9035	4991	1435	748	—	935	926	—	55·2	24·1	20·6
1886	9306	4967	1445	836	—	967	1091	—	53·3	24·5	22·1
1887	9406	4965	1444	857	—	972	1168	—	52·7	24·5	22·7

II.—Showing number of Pauper Patients removed to the Lunatic Wards of the Dundee East and West Poor-houses during years 1864 to 1887, and duration of residence in Asylum previous to removal.

Length of time resident in Asylum.	1864.		1865.		1866.		1867.		1868.		1869.		1870.		1871.		1872.		1873.		1874.		1875.		1876.		1877.		1878.		1879.		1880.		1881.		1882.		1883.		1884.		1885.		1886.		1887.		Total.
	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	E.	W.	
41 years	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
40 ,,	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
38 ,,	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
33 ,,	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
32 ,,	—	—	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
28 ,,	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
27 ,,	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
26 ,,	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	2
24 ,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
21 ,,	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	3
20 ,,	—	—	—	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
19 ,,	—	—	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	4
18 ,,	—	—	1	1	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	6
17 ,,	—	1	2	3	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	9
16 ,,	—	—	2	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	6
15 ,,	—	—	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	4
14 ,,	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
13 ,,	—	1	1	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
12 ,,	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	3
11 ,,	—	—	3	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	6
10 ,,	—	2	3	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9
9 ,,	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	—	—	1	1	8
8 ,,	—	—	2	—	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	1	9
7 ,,	—	—	1	—	3	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	2	3	—	—	—	1	13
6 ,,	—	—	8	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	15
5 ,,	—	—	3	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1	—	1	—	1	3	2	1	—	—	2	1	20
4 ,,	—	—	1	1	2	—	—	—	—	—	—	—	6	—	—	—	1	—	1	—	1	2	—	—	1	—	—	—	—	2	—	1	—	—	—	—	1	—	—	—	1	1	3	4	—	—	4	1	34
3 ,,	—	—	2	—	—	—	1	—	—	—	—	—	10	—	—	—	3	1	2	—	1	2	—	—	1	—	1	—	1	—	1	1	1	1	2	—	1	1	1	1	2	2	8	8	—	1	4	2	62
2 ,,	—	—	1	—	1	—	—	—	1	2	—	—	6	—	1	—	—	—	1	—	—	5	—	1	2	—	5	—	3	2	3	—	1	1	2	1	1	—	1	—	3	3	4	14	1	4	7	3	80
1 year	—	—	4	—	—	4	—	5	1	2	—	—	6	—	1	—	2	—	4	2	1	2	1	—	3	—	6	4	2	2	7	2	4	—	6	2	5	1	3	4	5	4	11	10	3	5	5	3	132
9 mths.	—	—	—	2	—	—	—	—	—	—	—	—	—	—	2	—	1	—	1	—	—	2	1	1	1	—	1	—	—	1	1	1	1	—	2	—	1	1	3	—	—	2	2	3	4	2	1	1	38
6 ,,	—	—	—	—	1	1	—	—	—	1	—	—	1	—	2	—	2	—	1	1	—	1	1	—	1	2	4	5	2	2	2	—	—	—	—	—	1	1	1	1	1	2	1	3	1	1	—	—	43
3 ,,	—	—	—	—	2	1	—	—	—	1	—	—	—	—	1	—	—	—	2	—	—	1	1	2	1	1	—	1	—	—	1	—	1	—	—	—	—	—	—	—	1	6	—	1	1	—	1	1	27
2 ,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	6
1 ,,	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Totals	—	6	48	18	21	7	4	5	2	6	—	—	37	—	8	—	10	1	12	4	3	18	4	8	13	3	17	10	8	10	16	5	10	3	12	3	11	4	10	8	14	25	35	57	10	15	29	16	566

III.—Showing number of Pauper Patients removed to the Lunatic Wards of the Dundee Poor-houses during various years from 1864 to 1887 from Dundee Royal Asylum, average annual number of Pauper Patients resident in the Asylum, and proportion of Patients removed to Resident Population.

Year.	Removed to Lunatic Wards.	Average Resident Pauper Population.	Per cent. Removed to Average Resident Population.
1864	6	150	4·0 per cent.
1865	66	130	50·8 ,,
1866	28	115	24·3 ,,
1867	9	123	7·3 ,,
1868	8	135	5·8 ,,
1869	—	144	—
1870	37	131	28.0 ,,
1871	8	123	6·5 ,,
1872	11	133	8·3 ,,
1873	16	139	11·5 ,,
1874	21	139	15·1 ,,
1875	12	148	8·1 ,,
1876	16	166	9·7 ,,
1877	27	181	14·9 ,,
1878	18	191	9·4 ,,
1879	21	192	10·9 ,,
1880	13	202	6·4 ,,
1881	15	235	6·4 ,,
1882	15	264	5·6 ,,
1883	18	277	6·5 ,,
1884	39	280	13·9 ,,
1885	92	254	36·2 .,
1886	25	233	10·7 ,,
1887	45	240	18·8 ,,
	566	4325	= 13 per cent. of whole average resident population.

The True Theory of Induction. By the Rev. W. G. Davies, B.D., Rector of Llansantffraed, Abergavenny, late Chaplain of the Joint Counties' Asylum, Abergavenny.

(*Concluded from Vol. xxxiii, p.* 229.)

Having thus pointed out the difference between the singular and the general relative to the Law of Similarity, we may understand with greater clearness how Induction, though coming in common with every other mental process under this same law, nevertheless at the outset, namely, in the whole of comprehension, is never concerned with the comparison of similars, that is, two or more individual chains of identity, and cannot therefore, in its origin, be generalization from experience.

"Why," asks J. S. Mill, "Why is a single instance, in some cases, sufficient for a complete induction, while in others myriads of concurring instances without a single exception known or presumed goes such a little way towards establishing a universal proposition?"* Mill here caught sight of some of the outlying islands, but did not succeed in piercing the gloom that hid the mainland from his view. As a reply to Mill's question, we hold that unless an induction can be shown to be formally valid in a *single* instance no number of similar instances will avail to insure its validity. We cannot multiply 0 into 1. How do we know, man, woman, and child, that we are necessarily supported by the floor under our feet? How do we know that this bust depends on the pedestal for support? We see that the bust is placed upon the pedestal—this is direct perception; but the pedestal gets moved out of its erect or proper position, and the bust falls—this, too, is direct perception. Now from these two data the conclusion is forced upon us that the bust must have depended on the pedestal for support, a fact which we now know at first-hand, that is inductively. Previously we knew it at second-hand as a deduction from kindred instances which we had established by implicit Induction.

5. The Canon of Induction which has now been described is, we submit, one of the most, if not *the* most, important of the Laws of Thought. For to it are to be traced the origin of such weighty notions as Essence, Dependence, and Causa-

* "Logic," People's Edition, p. 206. "Whoever," continues Mill, "can answer this question knows more of the philosophy of logic than the wisest of the ancients, and has solved the problem of Induction."

tion. The Laws of Identity, Contradiction, and Excluded Middle pale in importance before it, while, indeed, as laws, they are beholden to it for that high position.

J. S. Mill maintains that "the notion of Cause is the root of the whole theory of Induction."* This view, to our thinking, involves a clear *ὕςτερον προτέρον,* for without Induction we should not have the faintest notion of Causation, that is necessary connection between an antecedent and a consequent, which, to us, is the only intelligible notion of cause—not invariability of succession, not power, force, or will—for without Induction there would be nothing to reveal the secret relation in which antecedents stand to the consequent. To *direct* perception there is nothing presented in Causation but successive phenomena, a fact which the *à posteriori* school have not been remiss in forcing upon our notice. The place which Mill assigns to the Law of Causation we assign to the Law of Necessary Connection, which embraces the former. But the existence of Necessary Connection, and the uniformity with which it prevails in Nature, are learnt exclusively by Inductions. This uniformity, however, does not help to constitute the validity of the Inductions which realize it, but merely serves to exemplify the inherent validity of such Inductions. Repeating the feat of walking six miles an hour many times does not constitute the pedestrian's ability to do so, it only shows more clearly that he really possesses that ability.

The Law of Necessary Connection is not limited to the many instances in which such connection has been proved, it includes also the universalization flowing from these instances; but this universalization adds no validity to Induction; indeed, it prominently presupposes that validity. It does not provide a major premise that guarantees the soundness of the particular Inductions on which it is founded, but it does provide one that dispenses with the need of proving every particular included in that premise. It does not require a fresh Induction to prove that the Pope is mortal. That was decided long ago, when the universal proposition was inferred: "All men are mortal."

Induction is not confined to the connections that exist in the relation of succession to each other; it is equally applicable, as shown by the examples already given, to those that exist in the relation of co-existence. Let us proceed to examine these.

* "Logic," People's Edition, p. 213.

A connection is known to be necessary between co-existences, or between a Whole and its parts. To give an example as follows:—This Whole (an octagon) is possessed of eight sides. Eliminate any of these and the whole ceases to exist; therefore any of these sides is necessary to the existence of the whole. A connection is known to be contingent between a Whole and its parts; thus—A Whole, say water, is in a state of ice; melt the ice and the water remains. The connection, therefore, between water and ice is contingent only.

On this position Mansel makes the following strictures. Relative to the first example he asks:—"Does this mean exist in fact or in thought? A man cannot exist in fact without his head,* but we may conceive him as so existing. If it means in thought, this is a mere identical judgment. A is conceived as a whole made up of b, c, d. A thus means $b+c+d$, and no more. Of course A, as so conceived, cannot exist without b and c and d, because the whole is but the sum of its parts."

Answer.—Nothing exists for us but through thought, *i.e.*, consciousness. The "whole" meant, of course, is one which is not simply conceived or imagined, but one which, in the first instance, at least, has been actually perceived, and one the parts of which are not only perceived as connected with it, but, if eliminated, as destructive of it. If we perceive that the whole A is connected with the parts b, c, d, and if we also perceive that without these it ceases to exist, the whole A must be differently constituted from the whole B, which we perceive to have such parts as x, y, z, but which we also perceive is capable of existing apart from these latter. The principle involved in these cases may be illustrated by this example: If a pillar be built of 50 blocks of granite, then block 50—counting from the base upward—depends on all the blocks below it, but block 1 depends on neither of the blocks above it. To limit the principle here involved to analytical judgment as a mere form of thought would be purely arbitrary. We have here, looking up the column, 49 Inductions implied, proving contingent connection among co-existences; looking down the column, 49 Inductions implied proving necessary connection. And have we not here a law shadowed forth pervading all Nature—the law that the

* We may picture him as so existing, but we cannot believe that he can live were his head cut off. We picture, in the imagination, a centaur or a mermaid, but we believe in the existence of neither.

more complex and superior necessarily depends for existence on the more simple and inferior, but not the converse. The connection between the former and all below it is necessary, whereas the connection between the latter and all above it is contingent only. The connection between animal nature and vegetable nature is necessary; the connection in the converse order is contingent. The connection between rectilineal figures and straight lines is necessary; but, conversely, the connection between straight lines and rectilineal figures is contingent only.*

We have next to examine, more closely, necessary connection and contingent among unit cases of antecedence and consequence. These kinds of connection are known thus: —When this event follows that concurrence of events, and cannot follow without the antecedence of that concurrence, then this event follows necessarily from the antecedence of that concurrence. But if this event follows that concurrence of events, and happens when that concurrence has no connection with it, then this event only contingently follows that concurrence. Criticizing this position, Mansel observes :—

"This is physical necessity only, *e.g.*, a certain conjunction of the moon and sun is necessary to an eclipse of the latter; but we may conceive an eclipse caused by other means, or we may conceive the moon's shadow as transparent, and the sun shining through it."

Answer.—It is beyond our power to conceive an eclipse of the sun, such as now takes place, caused by other means. For it is evident that exact reproductions of an individual event involve exact reproductions of its antecedents. Because an individual or singular instance of causation cannot occur if any of the elements that are essential to it be eliminated. When causation comes to be considered as a general fact it

* To guard against a misunderstanding of the statement made in the text it has to be borne in mind that, in necessary connection, as that between block 50 and those below it, there is a relation between two things, and since the conception of one term of a relation involves that of the other, then, if an instance of necessary connection be expressed in a proposition, as, for instance, "Block 50 is necessarily sustained in its position by the blocks below it," conversely, "the blocks below must be sustaining block 50;" if "*A* causes *B*," conversely, "*B* must be caused by *A*." But, on the other hand, *i.e.*, as set forth in the text, while block 50 could not maintain its position were the other blocks removed, they can maintain their position though block 50 were hurled to the ground. Animal nature presupposes vegetable nature, and whenever this relation exists *in fact*, conversely, vegetable nature must be presupposed by animal nature. But while, to animal nature, this relation is a *sine qua non*, to vegetable nature it is simply an *addendum*, for it may, and does, exist without sustaining animals in many and many an instance.

will be necessary to bear this in mind, and to distinguish carefully between elimination as here pointed out and abstraction for the purpose of forming a general notion of any cause.

Instances of causation, in so far as they resemble each other, are reducible into classes, and some qualities that are indispensable to individual instances of causation are then bound to be regarded as contingent to the factitious general whole which is thus formed. For example, suppose that a certain death is caused by stabbing, with a certain instrument, by a certain person, in a certain vital part of the body. Now to this individual case of death every one of the particulars here named is necessary. But if we form a general notion of death by stabbing we are by that act constrained to relegate to the category of accidents the notion of a certain instrument, by a certain person, and a certain vital part of the body. Of a class of events thus formed we can only declare that it will have a certain class of antecedents. Having formed a general notion of the events by overlooking their points of difference, we must also form a general notion of their antecedents by a similar disregard of differences.

That inductive law holds good in the case of geometrical truths is strikingly evident. Within our experience two straight lines never enclose a space—positive percept; if such lines be made to enclose a space, one of them at least must cease to be straight—negative percept; therefore, two straight lines cannot enclose a space. Now, when we say that an infinite number of two straight lines of any length, or a single pair of straight lines produced to infinity, can never enclose a space, we mean exact reproductions of the two straight lines which Induction proves to be essentially incapable of enclosing a space. A universal truth must have a model or *principium* established in accordance with the Canon of Induction for its basis, and every *principium* so obtained, whether in arithmetic, geometry, chemistry, &c., is of one and the same type, and cannot be negatived without committing a *subversio principii;* hence the Universal.

6.—The formula of inductive reasoning herein presented involves certain rules. Of these we shall at present mention two only, the chief rules of Induction, the one primary or fundamental, the other secondary or derived.

Rule 1.—The positive and negative premise of an Induction must be compared, the one with the other, through *one* medium.

Rule 2.—The next approach to one medium is when the premises are compared, the one with the other, through two media which exactly resemble each other.

Example: In this case A is connected with B; in that other case if you eliminate A you eliminate B; the two media are exactly similar, therefore it is proximately inferred that A is necessary to B.*

As correct Inductions in compliance with Rule 1, let us select the following:—These two straight lines do not enclose a space; if they are made to do so one of them at least must cease to be straight, therefore these two straight lines cannot enclose a space.

This animal life is sustained by organic substances; this animal life, if deprived of these, becomes extinct; this animal life, therefore, necessarily depends for subsistence upon organic substances.

To these Inductions Mansel raises the following objections:—"These two straight lines are two given lines of a fixed length, and, as seems from the argument, sufficiently material to admit of bending. The argument does not come up to the axiom which says that two straight lines, if produced to infinity, *i.e.*, to any length beyond the length of these, can never enclose space."

Answer.—"These two straight lines are two given lines of a fixed length." Certainly. They are the *principium, i.e.*, the two straight lines that have been proved by Induction to be incapable of enclosing a space. Now, the axiom is arrived at by Universalization from such Inductions, and that in countless instances, for it is the peculiarity of most necessary connections of this sort that our experience spontaneously affords unceasing examples of them.

"Examples 1 and 2," argues Mansel, "are not parallel cases. We can conceive animal life continued without organic substances. We cannot conceive two straight lines enclosing space. Why this difference if both are instances of similar inductions?"

* A remarkable violation of Rule 2 has lately come to our notice. Mr. C. S. Read, at a late meeting of the Farmers' Club, declared "That in Norfolk recently 5 cwt. of superphosphate per acre grew 2 tons less than no manure at all." Now, unless the land manured with the superphosphate and that which "had no manure at all" were previously tested and proved to be virtually as *one*, the induction here intended is quite invalid, and proves nothing. Evidently the land that had "no manure at all" possessed, as proved by the crop, more vegetable protoplasm suitable to the same than the other land, even when manured as described.

Answer.—We mean the animal life of our inductive experience, no other; and we say confidently of that animal life, no other, that it necessarily depends upon organic substances for subsistence. This is our model produced out of the inductive mould, and out of that mould we feel confident that nothing can be produced but unvarying resemblances of the *principium.*

In Rule No. 1 a tendency which has for ages been manifesting itself seems at length to have arrived at a terminus. The explicit Induction of the ancients—the mere examination of Nature—was by Bacon, apparently taught by his legal experience, discovered to be inadequate; he plainly saw the need of supplementing the examination by a rigid cross-examination. This great step in advance has been made good, and has successfully formed the base of forward movement by subsequent inquirers. It has now been fully realized that the positive element of Induction without the negative secures no proof. These two elements, however, are not, in ultimate analysis, found to be compared through two resembling media, but in each singular instance through *one single* medium. This seems the termination, so far as the *explicit* development of Induction is concerned, of a tendency which has occupied so long a time in being finally traced. The long-explored river seems at length to have been followed up to its fountain-head in the Rule here given.

But while the author opines that he has here psychologically analyzed the inductive process to its simplest elements, he believes that behind every psychological process there is, as antecedent to it, a physiological one. Every act of knowing seems to involve an antecedent cerebral act. If, then, two objects are associated together in thought, it is because two cerebral movements are associated the one with the other. In Induction, for instance, when O (oxygen) is psychologically said to be necessary to C (combustion) there must be an antecedent physiological process of the following nature:—* Movement C is not only attended with movement O, but should there be a cessation of movement O, then movement C ceases also; movement O, therefore, is a *sine qua non* of movement C, and the reason why, in thought, a connection is found to be necessary

* Of course, our sole outlet to Being is Knowing, even as regards physiology. No Knowing, no physiology, or anything else.

between one notion and another seems to arise from the antecedent physiological law—imposed, perhaps, on the organism externally through the inlet of the senses—that movement C, for instance, cannot take place without the concomitance of movement O. On the other hand, if an object can be thought of without the concomitance of another cerebral movement, it is because such movement is not indispensable to it. The connection realized in thought, in that case, is not a necessary one, but a contingent.

In the doctrine of necessary connection here advanced it must be seen that there is not the least approach to mysticism or transcendentalism; that, indeed, it may be simply regarded as a protest against confounding two quite distinct kinds of connection, the necessary and the contingent, and, with a criminal disregard of delicate and complete analysis, treating them as if they were one.

7.—As the majority of men have arrived at the conclusion that one must belong either to the school of Aristotle, Bacon, Locke, and Mill, or to that of Plato, Descartes, Kant, and Hamilton, and some, like Buckle, with little analytic acumen and philosophical keenness of vision, gather from this that mental philosophy is an impracticable scheme, we shall here endeavour to show, by criticism of certain points in the transcendental philosophy of Kant, that the views advanced in this essay are not those maintained by the *à priori* school, because they differ in certain respects from those held by the opposite school. Our doctrine strictly conforms to the Law of Evolution. The *à priori* doctrine does not. Should we be facetiously reminded that he who sits between two stools will come to the ground, be it so; but there is this consolation—that ground sadly needed to be reached, as forming a new departure from Nature for which Philosophy has long been yearning.

According to the Kantian system, all first principles which are held to be necessary in the first degree come under the head of logical or mathematical necessity. Logical necessity is said to follow from the Laws of Identity, Contradiction, and Excluded Middle. Let us, then, proceed to examine the pretensions set up in behalf of these Laws. The Law of Identity is expressed by the formula "A is A." This is held to be a necessary and universal truth. But such truths, we have endeavoured to show, are never original, are never presentatively obtained, but conform to the Law of Evolution.

"A is A" is universalized from the inductive conclusion this "A is A," for without being A it cannot exist. The same is true of the other two laws; they are, as laws, derived from Induction.

The Kantians bring also under the head of truths necessary in the first degree the synthetical judgments of mathematics. These are said to be in necessary *matter*, and binding on the *object* of thought. Their necessity is said to arise from the fact that the matter as well as the form is supplied from within the mind. "Two straight lines cannot enclose a space"—what if the matter of this proposition should be subjective only, which we question, still, as Mansel himself teaches, conception is only possible within the limits of possible intuition, the conceived is dependent for matter upon the perceived; then, all we can know by introspection is that, as far as we have made the experiment, in thought, to follow two straight lines to any distance, they have never shown a tendency to enclose a space. But this only amounts to *inductio per enumerationem simplicem*. We must also observe that when, in thought, we make two lines enclose a space they cease to be straight, and from these data derive the conclusion which the Kantians call an *à priori* intuition. We are fully convinced, therefore, that the Kantian stronghold, the subjectivity of necessary truth in mathematics, must throw open its gates to the inductive power, and surrender its mystical pretensions. Its feudal stronghold must become a thing of the past.

8.—On the whole scope of our theory, our illustrious critic, in the correspondence which passed between us, remarks:—"No theory of Induction from facts perceived *ab extra* with which I am acquainted has ever succeeded in explaining the fact, which, as a fact, must be explained and not ignored, that I can conceive, in another world, the reversal of the most established physical law, but I cannot conceive the reversal of a mathematical truth. Mr. Mill, in his desire to put mathematical truths on the same level as physical, holds it conceivable that, in another world, 2 + 2 may make 5. This is the legitimate consequence of his theory; but so far as my own consciousness can be trusted, I am unable to conceive, or imagine, or suppose, anything of the kind."

Answer.—Those who, in opposition to the views of inquirers like J. S. Mill, uphold the *à priori* doctrine, we look upon as asserting the force of that inductive process which implicitly

operates in all sound minds as the chief act of reasoning, and which only attains the explicit stage after ages of inductive research, and then only by the *one* form being detected in the *multiform* matter of inductive science, in which, for a long time, it lurks in the engaged state, like morphia in crude opium. We are quite as unable as our critic to conceive, imagine, or suppose 2 + 2 making 5 in some other world than this, but the inability arises, in our case, from the consciousness of its anti-inductive character, from its being felt to be a gross *subversio principii.*

"Now I will suppose," continues our revered critic, "two bottles, one having a pure acid in it, the other a pure alkali. The mixture will be, according to chemical law, a given neutral salt. But I can perfectly imagine the first instance out of the two bottles resembling a neutral salt, and the second mixture, out of the very same two bottles, of the same ingredients, in the same quantities, resembling a glass of port wine, or even a cup of tea. I do not say that I believe * this, but I can conceive* it taking place; but I cannot conceive 2 + 2 making 4 to-day and 5 to-morrow, or making 4 here and 5 in the dog star. This is the difference which I think your theory does not explain. Or, to put the case in a different form, I do believe that Omnipotence can create a world in which the very same ingredients which now produce a neutral salt shall produce something totally different, but I do not believe that even Omnipotence can create a world in which 2 and 2 shall make 5. Why this difference?"

Our esteemed critic has started here a question which without doubt is a formidable one, and one that demands a serious answer. We beg to suggest the following explanation :—The difference appears to us to arise from the great complexity of the chemical as compared with the arithmetical truth. The former is more advanced in the order of evolution. We see at a glance that 1 + 1 admits of but one combination, but if we go on greatly increasing the number of units, the possible combinations become so many as to

* We think it would conduce much to clearness were the term "inconceivable" confined to what cannot be realized as a conception, or picture or image, namely, that which a term expresses; and that the term "unbelievable" should be used of propositions that assert what is in opposition to beliefs either direct or indirect, *i.e.*, reasoned. The term "conception" would then have as its related adjectives conceivable and inconceivable, and the term "belief" (judgment) believable and unbelievable.

grow quite bewildering. Now the arithmetical and geometrical examples usually selected as instances of necessary connection are of such a simple nature that the combinations of which they are capable are easily perceived at once, and their negation is instantly barred by the impossibility of conceiving or framing a mental picture, of any one of them, say of a bilateral figure. But when we have to deal with highly complex combinations, so many variations, as Mansel argues, are found to be conceivable, that it is only by the help of explicit Induction we become able to decide which is the real combination and which are the unreal ones. Without such a criterion operating, either in its implicit, semi-implicit, or in its explicit stage, science would be impossible. That would be the very opposite of water, as made known to us, which may be supposed to be made solid by heat and evaporated by cold, and to call such an object water would be a flagrant violation of the laws of naming. If, in the teeth of the Induction which proves the contrary, we endeavour to think of petroleum as extinguishing fire, we are, in reality, thinking neither of petroleum nor of fire, but of something so different from either that it is an outrageous proceeding to apply these names to them. The 5 which J. S. Mill unaccountably supposes $2+2$ may make in some other world than this is, in like manner, so different from our 5 that to give it the same name is as gross an abuse of language as calling a circus-clown a bishop. Let us select for experiment the following false propositions :—A chiliagon is a figure having nine hundred and ninety-nine sides; any two sides of a triangle are together equal to the third; a triangle is a four-sided figure; $1+1$ equals 3. Now these are simply *verbal* assertions : it is impossible to frame a *mental* assertion answering to either of them. But why are we instantaneously startled by the contradictory character of the two latter, but have to ponder, perhaps, before we realize the contradictory character of the two former? Why is this? The principle involved is precisely the same in each of these instances. An untutored mind may think that a parabolic curve, if carried to a great length, may become a straight line, and yet cannot believe that $2+2$ equals 5. Why is this? The difference existing among cases of this sort evidently consists not in kind, but in the great complexity of the one as compared with the great simplicity of the other.

The connections which, of all others, Induction most clearly reveals as necessary are those that pertain to the elementary truths of mathematics. These the transcendentalists have long been in the practice of regarding as their home dominion, accounting for their origin by what they call *à priori* intuition. But this theory, conceived at a period when the method of inquiry concerned in the construction of the physical sciences was but slightly developed, amounts simply to a declaration of common sense, an irresistible feeling that something, one knows not what, reveals necessity as pertaining to the connections mentioned. Now, since Induction seems so clearly to reign without a rival in these departments, can we avoid the conclusion that its dominion is co-extensive with all science, all philosophy?

One great point which this essay seeks to establish is this: Material Induction, so called, is clearly necessitated by Laws of Thought, not based, as Hamilton contends, on Laws of Things, and, in consequence, rendered extra-logical. Indeed, since nothing exists for us but through Knowing, there can be no Laws of Things in which Laws of Thought are not implicated, for the former cannot by any possibility become known to us except through Laws of Thought, which reveal either necessary or contingent connection. Again, any instance of Singular Induction cannot be called extra-logical, because in it the conclusion is inferred *sine medio* from the premises, and also keeps strictly within the quantity of the same. Again, when such a Singular Induction, proving necessary connection, is repeated a sufficient number of times to ensure thorough accuracy, the universalization which perforce springs from it is guarded from logical flaw by the fact that whenever an attempt is made to conceive the negation of the same, an anti-inductive act, a *subversio principii*, is involved. This, to our thinking, renders the universalization completely intra-logical, a conclusion deriving strong confirmation from the fact that "a necessary truth" has always been regarded as, virtually, a universal truth.

We would briefly reiterate, relative to necessary connection, that what the Kantians call *à priori* intuitions; J. S. Mill, beliefs rendered irresistible by insuperable association begotten not only by invariable, but unconditional uniformity, but receiving no confirmation from the inconceivableness of

their negation; Herbert Spencer, beliefs discovered by the inconceivableness of their negation to be both irresistible and indestructible—we call beliefs established by Induction, beliefs the negation of which is unbelievable because anti-inductive, because involving a *subversio principii.*

In conclusion, we desire to profess our firm belief in the universality of the Law of Evolution. We are constrained to hold that man's physical and organic antecedents, existing as they do prior to man himself, determine his constitution, that is, cause his nature to conform, as its development proceeds step by step, to their inexorable conditions. Notwithstanding the divergence between his views and those of J. S. Mill, the author, in common with him, believes "The state of the universe at any one instant to be the consequence of its state at the previous instant, inasmuch that one who knew all the agents which exist at the present moment, their collocation in space, and all their properties—in other words, the law of their agency—could predict the whole subsequent history of the universe."* It is because there are necessary connections in Nature (*sic* Knowing—only source of evidence) that the mind has been moulded so as to reveal them to us in Induction, and to distinguish between them and contingent connections. But while convinced that the Law of Evolution thus conditions the mind, we must not, with Comte, vainly strive to shut our eyes to the ever-present fact that, without Knowing, all is to us a blank. If, then, the point of departure in Evolution is from the pole of simplicity, man's departure, without doubt, is from the reflex operation of Knowing evolution's highest height; or, as the same law has been set down in Logic long ago—extension, the pole of which is the *summum genus*, the One in many, bears an inverse proportion to intention, the pole of which is the individual, the many in One, specially the microcosmic individual unity—a Man.

* "Logic," People's Edition, p. 226.

The Neuropathic Diathesis, or the Diathesis of the Degenerate. By G. T. Revington, M.A., M.D., County Asylum, Prestwich, Lancashire.

(*Continued from Vol. xxxiii., p.* 508.)

Section 5. Law of Latency.—A diathesis may be transmitted through a generation without giving outward and visible sign of its existence, and may appear in full vigour in the next; or a strong neurosis may manifest itself in the intermediate generation by a temperament (group 1); and in the third break out as one of the forms comprised in third or fourth groups. The neurotic diathesis is a creeping parasite, which though a mere line on the parent trunk, yet follows each branch to its uttermost offshoots, and here and there kills a delicate twig, or envelops a whole branch, and destroys it; but sometimes, under favourable circumstances, is itself eradicated by the vigorous growth of the stock.

Case 54.—General paralysis. J. H., aged 32, married, no children. First attack, duration two years, admitted February, 1886, died October. Patient was a hard drinker; grandfather insane; father, a steady man, died of phthisis. Here we have latency in the intermediate generation, early onset of general paralysis in the third, and the characteristic absence of offspring. The next case is very similar.

Case 61.—General paralysis. J. N., aged 35, unmarried, very alcoholic, and suffered a severe injury to the head thirteen years ago. Family history, grandfather insane, father a steady man, of normal mental equilibrium.

Case 67.—The following is a case of latency of a strong neurosis in an individual for twenty years, the subtle presistence of which is shown in the lamentable history of the children he procreated during this period:—

J. S., age 22, first attack, admitted, July 1866, with acute mania; recovered June, 1867. Second attack February, 1886, age 42, acute mania. He has improved to a certain point, and there stopped (has since recovered). During the intermission he married, and had fourteen children, of whom only four survive; four died in infantile convulsions. Family history, sister, T. S., cohabited with husband of her deceased sister, had nine children, several of whom died in convulsions; admitted June, 1875, age 32, with melancholia; recovered December.

Case 71.—Acute mania. T. P., first attack, age 28. Admitted May, 1885, recovered August, re-admitted January, 1887, with similar attack; will most probably recover. Family history, grand-

father died insane, father healthy and steady, younger brother died in convulsions; sister E., aged 26, first attack, admitted here May, 1882, with acute mania, recovered December; sister M., aged 39, admitted here March, 1885, with puerperal mania, and a history of a previous attack; did not recover. This is a very remarkable example of latency, the neurosis skipping one generation only to break out in four individuals of the next.

Section 6. The influence of a neurosis under favourable circumstances, such as a regular temperate life without accident or worry, may be postponed, and only manifest itself as a premature senility, the individual breaking down when he has spent his limited stock of nerve-energy. I need not delay to quote cases to this effect, as they are common, and would be commoner, were it not that the older a man gets the less likely are we to learn his history. *Cf.* case 28, page 11.

Section 7. Any one of the forms of neurotic manifestation may alternate with any other in the life of the individual. For example, spasmodic asthma has been described by Dr. Savage and Dr. C. Norman as alternating with insanity. There is a general likeness in the mental symptoms of the cases described, and the individual is generally under the influence of one or other neurosis. This we may call a continuous neurosis with a double manifestation. Such cases are rare, and I cannot quote a good type, but I will presently mention a case illustrating a relation between spasmodic asthma and the other neuroses. In a much larger number of cases we find a discontinuous neurosis, which varies the forms of its manifestations with the critical epochs of life. The daughter of a degenerate stock at the crisis of puberty, or of the adolescent period, may have an attack of chorea, hysteria, or epilepsy, and we may hear that she has had a sharp attack of the convulsions of infancy. Later in life she may break down in any of the crises of maternity, and have an attack of the insanity of pregnancy, or of the puerperal or lactational periods, or she may perhaps keep well until the climacteric crisis. Who can doubt that these periodic outward and visible signs are represented by a continuous, inward, and shall we say spiritual, something, a subtle influence of which we know no more than we know of thought or life?

For the present we must record facts and connect them as best we can, remembering only that labour is never lost, and that investigators in abstruse fields of science are as tapers lit in the night of ignorance that their sons may read. The

study of hereditary influence has not, perhaps, taught us much, but we must recognize that the mere mapping-out of the anatomical substratum of mind is not all-sufficient. The discovery of the functions of the anterior and posterior nerve-roots, which laid the foundation stone of nerve-physiology, was made not so much by the mere stroke of the scalpel, essential as it was, as by the intelligent study of the clinical phenomena which resulted.

In the following case we have a strange sequence:—

Case 45.—J. E., age 53, history of a previous attack, family history unknown, admitted March, 1868, much broken down in health, noisy, restless, and suspicious; died January, 1870, from bronchitis and dropsy; had been suffering for some years from spasmodic asthma, which continued to his death.

J. E., son of above, typical general paralysis, admitted August, 1886, married, no children, very alcoholic, no affection of chest, had a paralytic stroke ten years ago, and a convulsive seizure eight weeks since.

Here we have a neurosis expressing itself first as an attack of insanity, then as spasmodic asthma, and finally as a premature senility, with the mental symptoms coloured by the bodily complaint, and death at 55. In the son, the neurosis is strengthened by alcoholic indulgence, or, as I would prefer to say, manifests itself by a predisposition to alcohol, and a liability to be easily affected thereby; and we have a paralytic stroke at 29, and well-developed general paralysis at 39. The son is childless, and we see an example of the extinction of a bad stock as the culmination of a strong neurosis.

Case 51.—General paralysis. S. B., bricklayer, married, three children, admitted April, 1886, first attack, age 42, duration two years; March, 1887, is in last stage of general paralysis. Family history: paternal uncle suffered from melancholia and committed suicide, maternal uncle epileptic, history of drink and phthisis in family. Patient drank heavily.

Here we have phthisis and melancholia, depressed vital action on one side, and epilepsy on the other, and a predisposition to alcohol, which has become a neurosis. One brother of S. B. suffers from phthisis; another has had seven children, only one living; a third brother has had seven children, one only surviving; one died in convulsions. Of S. B.'s three children a girl died in convulsions, a boy lived only a few minutes, and the third, a girl, age 21, has a remarkable his-

tory. She is a well-developed young woman, with florid complexion, dark hair and eyes, and delicate features. She is restless in manner, and there is marked tremor of the lips and angular muscles of the mouth when she speaks. She says she has always been nervous and easily upset, and has suffered for years from severe pains in the top of the head. She states that she is worse in winter, and it appears that she has had two attacks, last winter and the preceding. On these occasions she felt afraid that "something was going to happen to her." She "dreaded leaving the house and entering the big streets." She was afraid that people would look at her, or would speak to her. Other symptoms were ringing in the ears, pain on the vertex, and sleeplessness at night. She was under a doctor's care, and was given sleeping draughts, which had little effect. She is much better at present. Nowadays, I suppose, this would be called a case of neurasthenia, with the special symptom of agoraphobia; but it suffices us to say that this girl has been on the borderland of insanity, and is quite unfit to bring forth healthy offspring. Of the seventeen children of the four brothers only three survive, and one we know has a hopeless future. Such is the Nemesis of natural law.

Case 69.—General paralysis of quiet type. L. G., age 32, first attack, duration six months, married, two children. Family history: mother insane. Patient has been a hard drinker at times, and has suffered for some years from severe headaches and neuralgia. It is possible that these two latter symptoms were prodromata of general paralysis, but it is quite fair, looking at the duration of the disease, to regard them as the first evidences of the influence of his inherited neurosis.

Section 8. Any one of the forms of neurotic manifestation may represent any other in the life-history of the family. For example, insanity in the parent may be represented by imbecility or epilepsy in the child, or by epilepsy in one child and insanity in another; in other words, we find an alternation of the neurosis between members of a family who have inherited a diathesis common to all, but manifesting itself in different forms. One brother may have an attack of chorea, and another be imbecile or epileptic, or become insane. One sister may break down at puberty with an attack of hysteria, and another with puerperal insanity. See cases 71, 49, and 98.

Case 73.—Epileptic mania. R. B., age 21, admitted May, 1885.

Epilepsy began at seventh year and continues; first attack of insanity when 17, recovered at home; second when 21; is now a terminal dement. Family history, maternal uncle insane, paternal aunt epileptic; brother J. B., when 25, was admitted here with an attack of acute mania, and recovered in two months.

Here we have an alternation of neuroses between brothers, the maternal influence being prepotent in one brother and the paternal in the other.

Case 75.—Epileptic mania. T. E., age 19, first attack, duration two years. Epilepsy developed at seven, and continues; is now fat and demented, and the fits are replaced by periodic attacks of excitement. Father died insane, mother of phthisis.

Here we have a neurosis taking effect early, and, as it so often does, expressing itself as epilepsy, and we have an early attack of mania. The replacement of the epilepsy, excitement of the cortical motor cells, by mental excitement, an epilepsy of the mind-cells proper, is a common feature, and points to an intimate relationship.

Case 92.—Acute mania. J. P., age 26, first attack, ended in terminal dementia. History of drink in family; father phthisis, brother chorea.

Section 9. Law of Prepotency.—The influence of either parent for health or for disease may be prepotent in the offspring; or if we wish to define the portion of this general law which bears on the subject before us, we may state it thus: the form in which the neurotic diathesis manifests itself, may be determined by the superior influence of one or other parent. Dr. A. J. Wall has recently given us some interesting statistics on the influence of the age of the parent upon the sex of the offspring. He concludes that "each parent, while in his or her prime, has the greatest power of imprinting his or her sex on the offspring . . . that the immature parent has very little power of doing so, the immature male being peculiarly powerless . . . that when there is a difference in the age of the parents the sex of the offspring is most frequently that of the parent who is nearest the prime of life . . . that in the lowest classes, who exercise about as much forethought in their domestic arrangements as dogs, the average age of the male is twenty . . . that anything which debilitates a parent renders it far less capable of imprinting its sex on the offspring." It would be interesting to apply these laws to the neurotic, and to inves-

tigate the numerical proportion of the sexes in families where one parent is insane. We have already arrived at the generalization that the daughters of insane mothers, and the sons of insane fathers, are more likely to develop the neurosis than the sons of insane mothers, or the daughters of insane fathers, but further generalizations might be made. It would be interesting to know whether the existence of a neurosis in a parent, lessens the power of imprinting sex on the offspring. Mr. Hutchinson has suggested that the present frequency of the Roman face in England may be due to prepotency in that remarkable race; the Bourbon lip, and other examples, will occur to everyone. I need not delay to quote cases, as many will be met with in other sections, but I may point out cases 73 and 84 as remarkable instances. At present we cannot assert that physical resemblance implies mental likeness; indeed, the opposite theory has been laid down, but it seems to me on quite insufficient grounds.

Section 10. An identical tendency, such as to suicide or to break down at a certain age, may be inherited. Some remarkable examples are given by the French writers and by Dr. Savage, the tendency persisting through three generations and manifesting itself at a definite age. Such wonderful accuracy of inheritance is peculiar to the nervous system, and is met with in a disease like progressive muscular atrophy. Trousseau mentions a case in which the great-grandfather, grandfather, father, and son, all suffered from this disease, which ran a similar course in each individual. Hammond and Eulenburg mention similar cases.

Case 27.—Melancholia. O. T., age 34, first attack, duration a year. Admitted March, 1886, after attempting to hang himself; recovered September. Grandmother committed suicide. Two aunts insane.

Case 93.—Melancholia. F. B., age 23, admitted May, 1885; recovered July. Had been drinking heavily. Brother broke down about same age with melancholia. He committed suicide. Had been a hard drinker. Similar cases are quoted in other sections.

Section 11. A slight neurotic inheritance connotes a ready breakdown and a rapid recovery. The ease with which a slight disturbance upsets the balance, is correlated with the ease with which the pendulum swings back. Of course the existence of a neurosis connotes, therefore, relapse, that is, another ready swing of the pendulum. My statistics point clearly to this law. The cases admitted in the period from January 1st, 1885, to September 10th, 1886, have so far re-

covered at the rate of 24·4 per cent. in the hereditary cases, and only 14·5 in the cases said to have no hereditary predisposition. Unfortunately a large number of recoveries come from cases whose histories are not accurately ascertainable. A statistical inquiry into the average duration of the attack in those who recovered shows clearly the favourable influence of a neurotic inheritance on the rate of recovery.

Duration of attack in those with —

No family history, but a personal history of drink...	2½ months.
A family history of both insanity and drink	4⅓ ,,
A family history of drink, a personal history also	4⅔ ,,
A family history of insanity only	5½ ,,
A family history of drink only	8¼ ,,
No family history of drink or insanity, nor personal history of drink	9½ ,,

Case 13.—Acute mania. W. M., age 21, first attack, duration seven days. Admitted September, 1886, recovered November. Family history, insanity in an uncle.

Case 21.—Acute mania. T. W., age 18, first attack, duration six days. Admitted May, 1886, recovered October. Maternal aunt insane.

Case 22.—Acute mania. S. P., age 24, first attack. Admitted May, 1886, recovered August. Family history, uncle insane.

Case 70.—Recurrent mania. C. R., father and mother drank. First attack, age 13, at W. Asylum ; recovered. Second attack, age 18, at H. Asylum ; recovered. Third attack, age 23, admitted here May, 1885 ; recovered August. Many similar cases might be quoted.

Section 12a. A strong neurotic inheritance may mean perpetual instability, a constant liability to break down, and a constant ability to return speedily to their normal mental equilibrium.

Case 29.—Recurrent mania. C. C., age 23 on first attack. Family history : mother drank, became insane, brother insane. First attack, age 23 ; admitted July, 1857, recovered April, 1858. Second attack, age 52 ; admitted Dec., 1884, recovered Feb., 1885. Third attack, age 52 ; admitted June, 1885, recovered Dec., 1885. Fourth attack, age 53 ; admitted March, 1886, recovered Aug., 1886. Fifth attack, age 54 ; admitted Dec., 1886, and is now, March, 1887, convalescent.

Case 33.—Recurrent mania. J. H. Family history, father insane.*

* Father, F. H., age 56, admitted Aug., 1881, recovered Aug., 1884, died soon afterwards in workhouse ; had three attacks previous to this. Family history : mother, brother, sister, and cousin insane ; daughter, L. H., single, age 33, admitted Nov., 1882, with a history of five previous attacks in 1867, 1870, 1874-1876, 1878-1879. Has not recovered. Compare history of the five attacks of her brother, J. H.

First attack, age 19; admitted Feb., 1874, recovered Oct., 1874. Second attack, age 23; admitted June, 1877, recovered Feb., 1878. Third attack, age 25; admitted Jan., 1880, recovered Aug., 1880. Fourth attack, age 27; admitted Dec., 1881, recovered Aug., 1884. Fifth attack, age 32; admitted April, 1886; to present time there is no sign of recovery. It is noteworthy that while the interval between the attacks has a tendency to become shorter, the duration of each attack has a tendency to become longer. J. H. is married but has no family.

Case 62.—Recurrent mania. H. G., married, no children, has been a hard drinker. Family history of drink, mother and sister insane. First attack, age 39, at L. Asylum, admitted 1878, recovered. Second attack, age 46, admitted Jan., 1886, recovered April, 1886. Third attack, age 46, admitted Oct., 1886, recovered Dec., 1886.

Case 64.—Melancholia with stupor. W. B. Family history, father drank, mother two attacks of insanity; she was insane while pregnant with patient. First attack, age 13, recovered at home in three months; second attack, age 14, February, 1886, recovered June, 1886.

Case 65.—Melancholia with hallucinations. T. T. Family history of drink, father insane. First attack, age 14, recovered at home; second attack, age 24, admitted February 1886, recovered March, 1886.

Who can doubt the recurrence of insanity in the two last cases, or the total unfitness of such individuals to fulfil the reproductive duties of mankind?

Section 12b. A strong neurotic inheritance may mean an early and complete breakdown, and a hopeless, useless, non-reproductive existence, in other words, the extinction of a bad stock.

Case 14.—Acute mania. G. B., age 22, first attack, admitted April, 1886. He is progressing towards a terminal dementia. Family history: maternal grandfather, grandmother, and uncle insane.

Case 32.—Acute mania. T. W., age 19, first attack; has been somewhat weak-minded all his life. Is now a terminal dement. Family history: an aunt, M. B., age 40, admitted December, 1885, with a history of three previous attacks, the first of which occurred at the age of 18. She has not recovered from the fourth attack. Another aunt was here and recovered. Two other aunts died of phthisis.

Case 78.—Acute mania. H. B., age 22, first attack; has ended in dementia. Family history, mother and maternal aunt died insane.

Case 81.—Acute mania. J. McD., age 29, first attack. Is now a terminal dement. Personal history of drink. Family history: brother insane, mother, C. McD., admitted October, 1877, age 60, with acute mania, which ended in dementia.

Case 113.—We have here a breakdown in twin brothers, occurring at about the same age, and the result exemplifies the two tendencies of a strong neurosis, the one to perpetual instability, the other to complete

mental death; one brother never recovers from his first attack, the other has six attacks in twenty-five years, and recovers from them all.

M. B., age 56, admitted October, 1885, with acute mania, and a history of five previous attacks, the first occurring at the age of 31; recovered February, 1886. Family history unknown, except that of twin brother, G. B., age 35, admitted to L. Asylum October, 1864, with melancholia with suicidal tendencies. Is now a terminal dement.

Many other cases illustrative of this law might be quoted, but it is unnecessary, and might be wearisome; and it is quite clear that some cases with a strong neurosis break down early and irremediably, while others break down frequently and recover easily, for ever pendulating between health and disease. It must be noted that in the cases quoted under this head (except 113) the neurosis is immediate, one or other parent having been in every case insane; while in the cases quoted under Section 11 the neurosis is remote, the insanity of an uncle or an aunt being the evidence of the existence of a family neurosis; in other words, the strength of an inherited neurosis in an individual increases in direct ratio with the directness of his blood-relationships with neurotic families.

Section 13. Epilepsy is one of the commonest forms which the neurotic diathesis takes when it expresses itself early in the life of the individual. I need not delay to quote cases to this effect, as examples will occur to everyone; but I may give some statistics. I find that in the congenital variety there is a family history of epilepsy in 33·3 per cent. and of insanity or drink in 58·3 per cent.; and in the acquired variety a family history of epilepsy in none, but of insanity or drink in 63·6 per cent. These figures show clearly the strong influence of hereditary and acquired neuroses in the production of epilepsy. In cases 74, page 12, and 83, page 14, the genesis of epilepsy in alcoholic individuals, after injury to the head, proves that this disease is one of the liabilities of self-made neurotics. In case 75, page 21, insanity in the father is represented in the son by epilepsy at the seventh year, and in case 87, page 15, epilepsy, developed in the father when 57, is represented in the daughter by insanity at an early age. In case 73, page 21, one brother receives epilepsy from the maternal side, the other insanity from the paternal side. In cases 73 and 75 we have epilepsy at seven, and insanity at seventeen, ending in dementia.

Section 14. The influence of hereditary and acquired neuroses in the production of general paralysis.

While the most perfect examples of the influence of hereditary predisposition and of the alternation of neuroses occur in what we in our ignorance are wont to term functional diseases, we find that in the most organic disease with which the alienist has to deal, namely, general paralysis, the influence of neurotic predisposition is very marked. But general paralysis is peculiar in this, that it requires for its development, in the large majority of cases, the presence of an individual (acquired) neurosis, with or without a family neurosis. Let us turn for information on these points to statistics. In the period from January 1st, 1885, to September 10th, 1886, there were admitted to this asylum 723 males. In 471 of these a fairly reliable history was obtained. Now, of these 471, we find that a family history of insanity or drink, or both, was present in 258, or 54·7 per cent. Of the 723 males 189 were undoubted cases of general paralysis. In 145 of these a reliable history was obtained, and a family history of drink or insanity, or both, was present in 74, or at the rate of 51 per cent. Thus at the very outset we find that hereditary neuroses are nearly as frequent in general paralysis as in insanity in general. Of the various estimates on this point we may say—

"Quot homines, tot sententiæ."

Morel said general paralysis was rarely hereditary; Dr. Savage says that general paralysis "does not occur directly as the inheritance of ordinary insanity;" and neither Griesinger nor Spitzka mention heredity as a cause. Drs. Bucknill and Tuke, and Dr. Clouston, while laying great stress upon sexual and alcoholic excess, and want and worry, which I have ventured to consider as conducive to the acquirement of a neurosis, do not mention inherited neuroses as a cause of general paralysis. On the other hand, Bayle said heredity was a factor in one half of his cases; König and Simon in one half; Mendel in 34·8 per cent.; Dr. H. G. Stewart in 47·6 per cent. Other authors assert that "the hereditary affinities of general paralysis are not with ordinary insanity, but with paralysis, apoplexy, and other brain diseases." More recently MM. Ball and Régis agree that "general paralysis does not originate in, nor engender, insanity; when hereditary, it is, so to speak, the cerebral and not the insane element that is so."

(To be concluded.)

Reflex Speech. By George M. Robertson, M.B., Assistant Physician, Royal Asylum, Morningside.

(*Read at the Meeting of the Medico-Psychological Association, held in Edinburgh, on November* 10*th*, 1887.)

This subject will be best studied by first considering the evolution of reflex action on the lines laid down by Herbert Spencer.* Reflex action is first displayed in its crudest form in the contraction which occurs when the amœba is touched, but not till there is a differentiation between the tissue which conducts and the tissue which responds to a stimulus, can reflex action be said to be thoroughly developed.

If one of the limbs of a cuttle-fish be severed and a sucker on the detached limb touched, it immediately contracts; here we have a nerve fibre conducting a stimulus to a peripheral ganglion centre, which reflects the stimulus to a muscle. This act is evidently not effected by any intelligence, is unconscious, and consists of a single movement, the result of a single stimulus.

Complicated movements may, however, take place in pure reflex acts of this description, as when the toe of a decapitated frog is pinched and a convulsive jump results. This variety of reflex merges into that in which sensation, with consciousness, is present, though probably not as an essential component, as in the plantar reflex and sneezing. And this form in its turn passes into the instincts, which are only complex reflexes, there being a complicated stimulus with complicated results, accompanied by sensation and consciousness; but the action is not the result of intelligence. Thus the young fly-catcher, which within a few seconds after its entry into this world snaps at and captures an insect, cannot possibly have done so as the result of intelligence, nor can movements of such delicacy and range have been purely voluntary in so young an animal. What knowledge could this young fly-catcher have had of the nutritious properties of a dark object passing over its retina of which it had no previous experience? And could we have gauged the distance and co-ordinated our movements so as to have grasped an object with the same precision as the fly-catcher, without any practice?

The architecture of the beaver, however, seems to display

* "The Principles of Psychology."

great intelligence; but that this is not so, and that the animal mainly follows a blind instinct, is shown by the fact that if a beaver be confined within a house it will construct dams of chairs and sofas when, of course, there is absolutely no use in doing so.* When, however, instincts become more complex and more specialized, varying as the stimulus varies, they come to have an air of intelligence about them; and, in fact, this is indeed the basis of intelligence—the adjustment of the inner tendencies to outer phenomena.

In this introduction I have attempted to show the almost insensible gradations between such a simple and obviously non-intelligent act as the contraction of the amœba and actions which seem to denote the possession of a high degree of intelligence, that one may the more readily grasp the non-intelligent and reflex character of speech in certain conditions which would not be apparent on superficial observation. It is all the more needful to do so, as we have got into the habit of regarding speech as necessarily the outcome of only the highest degree of intelligence.

We will now study the development of reflex speech by next considering the lines on which all reflexes are developed.

Granting contractility to living matter, the earliest reflexes —almost subject to physical laws—are probably produced by the molecular change caused by an impact; and as the organism will probably be more liable to impacts on one part of its body than the rest, the function of contraction about the part struck will be more perfect than elsewhere by the greater frequency of contraction there. The constant molecular change produced by contraction at this part will also in time produce a differentiated structure, and as evolution proceeds we have a muscle here. The force of the impact will also travel in special directions, and in the lowest organisms these will probably only be lines of discharge, the molecules of which are in a state of high mobility; but in more highly evolved animals these are nerves.† With this differentiation of the tissues much more special movements can take place; and as the useful variations became perpetuated, and there came the evolution of the various senses, there would be opened up the possibilities of movements of a wide range of character and complexity. Complex reflexes and instincts may be traced

* "Mental Physiology," Carpenter.

† "The Brain as an Organ of Mind," Bastian.

along the lines of evolution to the above simple contraction, but after the organism has become highly developed new reflexes can be opened up by another means—by the perpetuation of voluntary movements which have become habits. Thus, to take as an example the reflex closure of one's eyes when anything suddenly approaches, it is not too much to believe that at a distant period non-evolved man had to perform this action voluntarily as a protection to his eyes. In course of time this voluntary act would become a habit, and after many generations it is not improbable, from what we know of heredity, that it should be handed down to the descendants at an earlier age as a habit, developed in them without experience; that is, as a reflex or instinct.* This mode of development is the principle which obtains in reflex speech; but man has not yet been evolved to the extent of having speech transmitted to him as an instinct, for, of course, speech has not been practised anything like the length of time that the habit of shutting the eyes has been.

In order that any voluntary action induced by a sensation may become reflex, one must train the nervous discharge to keep strictly along certain lines by always producing the same sequence of events. Thus, whenever there is a certain special sensation the same action must always follow it; and in course of time, by frequent repetitions, this action follows the sensation with very little effort of will, and, finally, it may dispense with all attention whatsoever. Nerve-force travels along the lines of least resistance, and having been trained to pass along certain routes frequently, these lines offer less resistance to it than any other.

Now, in the case of speech, are the above laws ever obeyed? Is it not true that we are often asked a particular question, that is, we receive a certain sensory stimulation, and we give a particular answer, that is, we respond with a certain special action, and that exactly the same stimulation and exactly the same response follow one another invariably and recur day after day for years? To offer an example, are we not daily asked the question, "How are you to-day?" and do we not almost invariably reply "Very well, thank you?" Have we not got here in perfect simplicity everything needful for the production of a reflex—a certain sensory stimulation, an invariable muscular response, and great frequency of occurrence? It is, perhaps, unnecessary

* "The Expression of the Emotions," Darwin.

to point out that we are not dealing with the sounds of speech—that is only an accident of the situation; the true response consists in certain co-ordinated movements of the diaphragm, labial, lingual, and other muscles; but, fortunately, it so happens that we are easily able to separate and recognize the different movements by the different sounds produced as the air is forced out of the lungs. It will be convenient, therefore, to speak of these movements by the sounds or words they produce.

At first—that is, during childhood—the reply, "Very well, thank you," was the result of great voluntary effort, and was an operation showing considerable intelligence. Soon, however, it became a habit, and the muscles, without any effort, now fall into their proper sequence of contraction; but it is still an operation which is guided by a higher power. Cut off this higher power, this intelligence, as one would the head of a frog to test its reflexes, and one has in certain cases the same sequence of events continuing; but now the act is purely a reflex or automatic one. The absence of this intelligence and volition is the crucial test of the existence of reflex speech, and the presence of intelligence can always be discovered by observing if the reflexes are inhibited to suit altered and special conditions, this being, as before said, the basis of intelligence. Thus if one asks a person obviously suffering agony, "How are you to-day?" and he answers, "Very well, thank you," one perceives that a higher power has not stepped in to alter the reflex to suit special circumstances, but that the nervous discharge has followed its accustomed channels. The sensory stimulation has produced a non-volitional and non-intelligent act, quite on a level with such obvious reflexes as suddenly closing the eyes or starting on hearing a loud noise. Such reflexes are, of course, only possible with questions and replies of a general, and not complex nature, and which are constantly in use. Special questions and complicated replies require the exercise of the intelligence, and occur so seldom that they never become automatic.

Reflex speech is present when the mind is in a perfectly healthy condition, though under these circumstances it is obscured; accidental conditions, however, often display it, as when the individual is excited or confused, and especially when absent-minded. Under these conditions answers are given which are perfectly appropriate to the questions, being, in fact, the usual reply, but which display their com-

pletely automatic nature in not being true—not suiting the special circumstances of the case. Thus one asks an absent-minded person, "How are the family to-day?" or "How is your brother Tom?" and he answers, "Very well, thank you," or "They are all well, thanks," and immediately afterwards he will exclaim, "What *have* I been saying! Why, my father is laid up with gout," or "Tom has broken his arm."

All reflexes, including the speech-reflex, are controlled to some extent in health; and just as the plantar reflex becomes exaggerated when there is a transverse lesion of the cord cutting off the higher inhibiting power, so the speech reflex becomes exaggerated when control is taken off it. It is found exaggerated in several forms of insanity; in varieties of melancholia to some extent, where the attention is so centred on the individual's own feelings that few sensory stimuli reach it; in secondary dementia, where volitional power and intelligence are weakened, to a greater extent; but probably it is more marked in senile dementia than in any other variety of insanity, for here there is a gradual decay of the intellectual fabric from the top downwards, and volition and intelligence high in the order of evolution decay soon, the lower functions being comparatively healthy.

I will now proceed to give some examples of reflex speech, the first being from the case of a man named A. R., who was a healthy old man till he had several attacks of apoplexy. During the last fortnight of his life he had absolutely no intelligence, was dirty in his habits, and never spoke a single word unless he was spoken to, except on one occasion, which will be mentioned. He did not at any time ask even for a drink or for something to eat; and, in fact, if food were placed beside him, so defective was his intelligence he did not touch it, and it had to be put into his mouth. So little use, moreover, was speech to express his thoughts or feelings that, though subjected to a long and extremely painful operation, during which it was apparent he suffered greatly, he uttered not a sound, except a very occasional grunt. A man with less intelligence expressed in his actions it is impossible to imagine, and one would fancy not at all like a subject to show even speech, far less reflex speech; still, it is not so. I will now repeat some of our conversation, reported verbatim, which occurred at different times.

"How are you?"—"Oh, just about the ordinar', thank ye."

"How are you feeling to-day?"—"Oh, pretty weel, thank ye."

"How's all with you?"—"I'm doin' pretty weel."

"How are you to-day?"—"I'm pretty well to-day, thank ye."

"You're not so well to-day?"—"I don't think I am."

"How's the wife this morning?"—"Oh, she's very weel, I'm thinkin'."

"Would you like to get up?"—"Yes, sir, I would."

"Will you take your hands away?"—"Yes, I'll do that."

Granting no intelligence, this series is an example of simple reflex or automatic speech, and the following facts prove that the answers were not in the least intelligent. He was suffering from a serious illness all the time he repeated that he was very well. He knew nothing about his wife's condition, although he stated that she was well, and though he promised to move his hands he did nothing of the sort. One morning I elicited a beautiful response from him. As I approached his bedside and nodded a greeting to him he exclaimed, "Good-bye." The circumstance of my approach and nod called for a greeting of some sort, and I obtained a greeting—the fact that it was an improper one and did not suit—the special circumstances demonstrate all the more conclusively that it was purely automatic. The usual stimulus for reflex speech is the sound of speaking, though reflexes excited by the sense of sight are also common, the above being an example.

This speaking machine was capable, however, of greater efforts than the above, for on one occasion I ordered the patient in the next bed to be given a bath, and hearing me, he said, "It's the best thing you can do, I'm thinkin'." Now it is absurd to fancy that this man could have considered the propriety of giving a bath to his neighbour.

His wife came to see him on another occasion, and he gave absolutely no signs of recognition. Still, when she said on leaving, "Good-bye, Sandy; I'll come and see you again," he replied, "If ye'll just let me know when you're comin', I'll be glad to see you." This is a common enough reply to give to a stranger on his departure, and it is probably often spoken in a more or less automatic fashion.

These examples are probably sufficient to demonstrate the automatic nature of this patient's speech, and we will now pass to the next case—a man named Ross—also a case of senile dementia, with restlessness and excitement. This

patient was dirty in his habits, would not touch food if it was placed beside him, never made a single request for food or anything else, and would not do the simplest thing that was asked him. He was almost as stupid and non-intelligent as the former case, the main point in his favour being that he spoke, and this sometimes incessantly. His language, however, was a nonsensical jargon, quite incoherent, and contrasting very much with the clearness of his reflex replies. If he was able to think, it is evident, from the example of his speech about to be given, that he was unable to express himself in language, and that he suffered from that variety of aphasia in which the words are jumbled together. The facts point to the belief, however, that he did not think, and that the words, the accidents of the situation as I have described them, were the results of a general motor convolutional excitement, expressed in the non-articulatory muscles by the incessant restlessness, fumbling and pulling of the bed-clothes, and the kicking of them off, as obviously non-intelligent and non-volitional as the unintelligible sequence of his articulatory acts. The following is an example of his talk in the course of less than a minute:—

"If you would just come be—with the way—what now! —Oh, dear, dear!—Oh! that is whole the closh—That's what!—Oh, dear, dear me!—An it is the other macock or macockiness—See!—Who is what?—that—is it?—Oh, age!"

In the midst of this jargon it is instructive to notice the only intelligible thing—a reflex phrase—"Oh, dear, dear me!"—which in this partial disintegration of the speech-centre has withstood destruction as well as single words have done, showing that a reflex phrase may be regarded as a compact organized unit. As regards this patient's reflex speech, the following may be taken out of a very long collection:—

"Well, Ross!"—"Weel, sir?"

"Well, Ross!"—"Weel, sir, what is it?"

"How are you?"—"Very well, sir."

"Well, Ross, how much money are you worth?"—"Well, I cannot tell you that."

"Take your fingers away from there!"—"I'll soon do that."

"Take your fingers away from there, sir!"—"Oh, yes, yes."

"What's the time of day?"—"I canna tell ye."

"It's a fine day, Ross."—"It is that."
"It's a wet morning."—"Oh, no, not now."
"It's a rainy day."—"Yes, it is."
"Ross!"—"I hear, sir."
"You're an old rascal."—"Yes."
"Did you have a nice dinner?"—"Oh, yes, sir."
"Are you glad to see me?"—"Well, yes, I am."
"You're a big fool."—"Oh, yes, that's right."
"How are you this morning?"—"Oh, very well, thank you."
"It's a fine day."—"Aye, indeed it is."
"You're a troublesome old wretch."—"Oh, not at all—not at all."

These replies, if not regarded as automatic, would necessitate the existence of a considerable amount of intelligence, which the man certainly did not possess. If the result of intelligence, and controlled by his volition, why is it that one moment he says it is a fine day and the next that it is a wet? Why does he answer so often falsely, and why does he not act as he says he will?

What must strike every reader is the marked reflex contrast between the clear and intelligent replies, and the incoherent nonsense he was in the habit of speaking. This is quite analogous to the difference between the useful and rational reflex closure of the eyes, or the sudden defensive attitude which he assumed when threatened with violence, and the absolutely useless movements he constantly performed. This plainly demonstrates the fact that volition and intelligence being lost, voluntary movements must suffer, whereas reflex movements, which occur quite independently of volition and intelligence, do not suffer in the slightest. Intelligent speech, also, is a sign of high development, as it necessitates ideation, whereas reflex speech, since it exists without ideation, is lower on the scale of evolution, and as a result resists destruction longer, being more strongly organized. What struck me forcibly in this case as showing the highly organized condition of reflex speech and its persistence when intelligent speech had totally disappeared, occurred when the patient was being bathed, the following being all that was intelligible amidst groans and shouts:—

"Oh, good gracious!—Oh, don't do that!—Oh, stop that now!—Hats, I canna be bothered with you!—Oh! oh!——Oh, you devil!"

The attendant could not understand the mixture of the seeming intelligence and stupidity of this patient. He would

hear me have the following conversation with him on my morning visit, and conclude that he had some intelligence:—

"Good-morning, sir."—"Good-morning."

"It's a nice day."—"Aye, it is."

"How are you to-day?"—"Oh, I'm very weel."

"You're not well to-day?"—"Oh, I don't know."

"Good-bye, Ross."—"Good-bye, sir."

Immediately afterwards he would ask him to take a drink, to sit up, or to keep his bedclothes on, and the man taking not the slightest notice of him, he concluded that he had no sense. He once told me, "Doctor, you get him to answer very well; I can't get him to speak to me," the reason being, of course, that I took pains to elicit reflexes.

In all the instances as yet given the reflex path has been correctly followed, and the reflexes exactly suit the special stimuli. In the following examples there has resulted a reflex phrase, but the special stimulation has not been differential, or there has been irradiation in the path, and the reply is unsuitable to the question. This is not very common, and this fact again shows how well organized the path of reflex speech is.

"You'll be busy now?"—"Very well, thank you."

"It's a rainy day."—"No, I'll no do it."

"What is the matter with you?"—"Not at all."

"What day is this?"—"Oh! but that is not right."

The cycle of reflexes, however, is limited, and after one had pumped this man for one or two days one got all that was new out of him, and after that he repeated his stock phrases over and over again.

Many more examples from other cases could be given, but they mainly go over the same ground as these two, and more could be said about reflex speech, including its analogies and its pathology, but I will now conclude with a brief summary of what has been advanced.

1st.—That actions seemingly the result of great intelligence may be in reality mainly automatic and reflex.

2nd.—That in speech we have all the causes acting which tend to develop reflexes.

3rd.—That in health reflex speech is commonly inhibited, but that in exceptional circumstances it is well displayed.

4th.—That in some mental diseases reflex speech exists in an exaggerated condition.

5th.—That the path of reflex speech is a well organized one, and strongly resists destruction.

CLINICAL NOTES AND CASES.

Cases of Masturbation (Masturbatic Insanity). By E. C. Spitzka, M.D.

(*Continued from Vol. xxxiii., p.* 401.)

The following case illustrates the influence of heredity on the protracted types of insanity originating from or excited by self-abuse.

IX.—*Indirect heredity, masturbation, spinal irritation, voluptuous sensations, outbreaks of fury, insane character, purposeless and insane project-making.*

F. S—, aged twenty-three years, has no settled occupation, residing with his parents. He was referred to me by the editor of a scientific periodical with the statement that his father had complained of his acting strangely and being at times very violent, and appearing to him to act in a very excited manner when visiting his (the editor's) office to read the books and exchanges there accumulated. This statement was supplemented by the claim that he was "wonderfully bright and smart in conversation," and also "aware of his own condition."

On arriving with a formal note of introduction (April 29th, 1886) the patient without further parley said, "Doctor, I have a varicose vein here, accompanied by seminal losses." He indicated a spot in his abdomen, about an inch and a half to the left, and as much below the level of the navel, a careful examination of which revealed nothing objectively abnormal; the patient experienced sensations analogous to sexual ones when this place was touched. Occasionally such sensations spontaneously originated there. During the time he was with me he was almost continuously pouring out words, jumping from subject to subject.

He was certainly one of the most singular looking persons I have ever seen. The expression of his countenance was indescribable; in ordinary language it would be spoken of as at once repulsive, comical, and weird. This effect was heightened by involuntary grimaces, resembling vacant smiles or sarcastic grins. Occasionally an expression of Satanic cunning would pass over his countenance; in the next moment it would look almost childishly open and appealing. His gait was sliding and swift, he appeared to pass along without steps; and I could not resist the impression that the author of that ingeniously absurd romance, "Dr. Jekyll and Mr. Hyde," had some such person as my patient in his mind when he described the repulsive influence exerted by the latter on persons passing him in the street. His complexion was ghastly; the height was about five feet five inches; the pupils

were dilated and mobile; hands moist and cool. Aside from a bluish, congested appearance of the glans and prepuce, an anæmic murmur, and a subjective numbness—particularly of the left leg and thigh, with diminished pain sense—nothing abnormal was found in his physical condition. He was of sturdy build and fairly powerful.

As his appearance suggested, he was, and had been for years, an inveterate masturbator. He had practised that vice since childhood almost daily, and, as a rule, repeatedly each day. He manifested no shame in the avowal; on the contrary, when I cautioned him regarding its continuance, he did not scruple to assert that it had become a physical necessity, and that the only relief he obtained from the sense of pressure by the so-called varicose vein—the spot repeatedly alluded to above—was obtained through this means. He abhorred the very notion of normal indulgence, and did so with an air of virtue, evidently sincere as far as he could go.

In cases of this kind I entertain but slender hopes of remedying the evil by any means, ordinary or extraordinary. As a last resort, where I have not the entire control, I inform such patients of the danger of continuing their vice, and add that they are not to consult me again in case they relapse, an event which I intimate they will be unable to conceal from me. To my great surprise the plan succeeded in this instance, and, for a time at least, bore fruits far beyond my expectations.

On the second of August he again reported. His colour was still pale, but his expression more open and steady. His appearance, which previously had been slouchy, was remarkably neat. He began by thanking me for what he supposed I had done for him. I was able to obtain a coherent and continuous account from himself. He complained of sensual sensations which annoyed him since he had discontinued the habit. They resembled a glow, beginning at the perinæum, appearing to connect with the "spot," and thence running up the abdomen and back. Pressure on the former still sufficed to bring on such sensations. He still made absurd statements, but less emphatically than on the previous occasion. Thus, when I reminded him that the worst feature of his case had been his palliation of the habit on the alleged ground that it relieved his pressure, he said, "Well, it was necessary; I mean it ought to have been necessary." Being unable under cross-questioning to explain himself, he abandoned the notion. He also used stilted language occasionally, and, as before, intercalated proverbs and *mots* that had no relation to the topic of conversation, such as "better to have a new coat than an old one," when speaking of his family. He also said, "Going along the street I find that it is such fun to spoil things; people go along imagining that they have good looks, and do not think that I have a power to take away their good looks, a power as if I could bite them. Only a certain kind can be good-looking." As he left me he said, "My grandmother was crazy, I mean high-strung." In response to an

inquiry as to the nature of her nervous trouble, he said she was of American breed, and "you know," he continued, "all Americans are crazy." He explained his previous statement about his Jewish blood by stating that his maternal grandfather had been a Jew.

He has either entirely or nearly entirely discontinued self-abuse, is better able to control himself, and, whereas before he would talk at random, incoherently, and extravagantly to everyone and throughout the entire conversation, he now does so only with those whom he chooses to regard as intimate acquaintances, and after he has become tired out. He presented distinct and characteristic signs of cerebral anæmia, to which the treatment was being chiefly directed.

September 4th.—A younger brother of the patient came to me as the bearer of a request on the part of his family that F. be committed to an asylum. After the temporary improvement alluded to, he resumed his bad habits, and became depressed and suicidal. He made two suicidal attempts, one with a fork and another with a carving knife, both of which failed. Inquiry developed the fact that a maternal uncle was an inmate of the Bloomingdale Asylum. With regard to the picture galleries, they turned out to be based on the fact that remote members of the family possess such, in other words, "*Chateaux en Espagne*." It is true that the family S. has wealthy estates, but the branch to which the patient belongs is devoid of Spanish and not over-rich in any mundane property. He was not removed to the asylum, and appears to be deteriorating.

Persons of this class contribute a contingent to what may be termed "rounders," consulting every physician to whom their attention may be directed, usually doing so by letter. One such patient, after making an appointment, sent an old tattered envelope by mail, addressed, "Dr. Spitzka, &c., &c., City N. Y." It contained three scraps of paper; one had been evidently torn from a note, and contained the information that this patient had missed me twice—which was not true —and that "vertigo, flatulence, heartburn, debility, spinal tension still lag superfluous." The second slip was written on the back of a prayer with the same pencil as the latter. It contained the following :—

George B. H— [follows address].

Diagnosis.

Constipation, nervous debility, tremor, loss of appetite, disordered imagination, spinal cord and cerebral trouble, melancholy, hysteria, mania, life almost unendurable ; probable cause, dissipation and ——.

The last dash in the above was by the patient, and stood for "self-abuse." The prayer on the back was a paraphrase on one of the Psalms, and, although crossed over lightly, was intended for my eye, the patient later admitting that he

had heard I was not a good Christian, and had prided himself on the opportunity of becoming the "humble instrument" of a conversion. The third slip was a laconic report on the effect of the therapeutic procedures he had followed under my direction :—

THE TINCTURE.—Effects: Increase of appetite, less tremor at meals, more tremor after meals, quinia-like *ringing* in ears, *vapours* in head, depression, and *once* since Monday (after a nap) a spasm of madness, scarcely able to walk.

THE BATH.—A new cerebral column, as it were; a tuning up of the old piano, so to speak.

The first slip was written in black ink, the second in pencil, the third in green ink, and the slips of paper were even more diverse in character than the ink.

At this time I was engaged in lecturing to a class of lawyers and physicians at the New York Post-Graduate Medical School on the Medical Jurisprudence of Insanity, and succeeded in inducing this patient to allow himself to be shown before the class, as illustrating the co-existence of mental disorder and so-called *conscience d'état*. As he had claimed to be a law student, and his consulting me was due to a desire to read up for his examination, I stated to the class among other things that, beginning as an actor and a newspaper correspondent, he had now concluded to enter the ranks of the legal profession. One of the lawyers present, wincing under this reflection, as he regarded it, asked him a few questions, the answers to which conclusively proved that he knew almost nothing about law, and had in fact merely desk-room as an odd clerk, shifting around from one lawyer's office to another, and there having read the titles of a few legal works. That his intention to become a lawyer was as little destined to fulfilment as his other schemes I felt certain, and after having lost sight of him for a year I received a provincial journal containing a marked passage, which showed that he again had become a newspaper reporter with histrionic affiliations.

The letter-writing tendency, to which I owe the characteristic expressions of the insane temperament already cited, is a common attribute of all patients of this group who have sufficient education, and who have not undergone deterioration. Those who treat seminal weakness are flooded with such correspondence. Often the patient in his shyness attempts to state his case in writing rather than risk a personal interview. Even medical men suffering in this way resort to

the same strategy, and follow it out with a determination which shows how much they dread to meet a medical interlocutor face to face. One such colleague, after my declining to treat him without a personal examination, who suffered from distressing imperative conceptions and impulses which subsequently required asylum treatment, wrote me the following list of questions, with spaces for answers sufficiently large to have occupied a good share of my working time in filling them :—

1. Is there any *real* danger of insanity or brain-fever? 2. How about carotid compression? 3. *Cold* applied to cheek controls or arrests cerebral activity, give details as to proper temperature for continuous use in waking hours and to produce, or help produce, sleep. What are the dangers attending its use? Other details as to use, if desirable? 4. What are the best anæsthetics to "catch" on? 5. How to use chloral if advisable (have taken very little during the month). The danger of using chloral is (Fothergill) lest it produce cerebral anæmia. Now what is the danger of using it while there is *manifest* cerebral hyperæmia?

Another patient wrote me from a distance, asking me to send him copies of his prescriptions, as he wished to send to another city to have them filled, for he could not think of again facing the local druggist for fear that he might discover what his malady was.

In a number of cases of insanity due to masturbation, where neurotic or insane heredity could be excluded, the clinical features resembled those of the hereditarily modified forms, or approximated insanity of pubescence, and I was struck by their coinciding in the patient's having a very silly, meddlesome, or stupid mother. This same ancestral feature I have found in insanity of pubescence. In the following instance it was very prominent, and both forms of derangement appear to have been mingled.

X.—*Weak maternal ancestry, somatic stigmata, mixed psychosis, determined in its outbreak by masturbation, but with many of the characters of insanity of pubescence.*

Peter R—, aged 25 years February 5th, 1886, although of well-to-do parents, is a labourer in a shoe factory. He has saved, what under the circumstances is, a large sum of money, having been industrious and of a saving disposition. About a year ago, owing to depression in business, he lost his situation. He made no effort to obtain another, as he "had enough to support him in idleness," as he said. He then became more inactive, feeling as if he were about to fall asleep, and as if his memory were going from him. For the two last weeks his relatives have observed that he spoke foolishly. He read a great many books, the two making the greatest impression on

him being Schiller's "Räuber" and a book relating to Vanderbilt's wealth and how it was gained. Occasionally he would weep in secret without any discoverable cause, or assigning any. On one occasion when his illness first became noticeable he said he was born for something higher; being then asked what he was born for, he said "a priest." Previously to this he had become irritable and cross, particularly to the children when they made a noise. His character had undergone a previous change as inquiry developed. From having been profane, he ceased to be so; from having been very particular as to his personal appearance, spending hours before the looking-glass, he had become careless. Examination of his family history revealed nothing of importance on the paternal side, except a supposed predisposition to cardiac disease. The mother is an exceedingly obtuse woman, and a sister of hers had become insane from abandonment. The patient's face is unsymmetrical, the left orbit being lower that the right, while the left oral angle is higher than its fellow; the mouth, as a whole, being more to the left. At first mute, he became responsive, is a good penman but poor at figures, and at school was regarded as a dull boy. He carries a diary with him, which contains scraps of wretched poetry, most of which are erased. He admits having masturbated even recently; most of his excesses in this respect were committed about three years ago. No somatic disease; the patient is of tall, powerful build.

After being placed on restorative treatment he improved for about two weeks, and did some work requiring mechanical skill about the house. He became more communicative. During the day he would often complain that his feet were cold, and put his boots off and on, because his slippers were too narrow. He ceased talking at random or foolishly, but became surprisingly docile—too much so, I thought—allowing himself to be governed by the smallest child in the family. Towards the end of the period during which he was under home treatment he was noticed to laugh to himself again, and on one occasion snatched a toy-whip from one of the children to play with it. Its mother—his sister—attempted to take it away from him, when he threw it down and with a fierce air said, "Don't you do that again." The relatives now asked me to carry out my original proposal of submitting him to asylum treatment. After the ensuing re-examination the patient having, through his foolish mother (who opposed this project), learned of the proposal coloured in the darkest tints, became very moody. Having occasion to wipe his nose, he used a piece of paper, and throwing it in the fire said, "There is the fellow; burn him up." Being asked whom he meant, he said, "The doctor." That evening he disappeared, and was found the following morning, a few hours after midnight, walking up and down before the cathedral, "in order to prevent thieves from making away with it during the night."

In the asylum the patient showed some improvement, which at present promises to be progressive.

The following three histories, representing the psychical results of masturbation in the female sex at different ages, will conclude the series of typical histories.

XI.—*Masturbation commenced at fifth year, arrest of mental progress, peculiar periodical spells of excitement, erotic behaviour.*

Louisa W—, aged ten years, four years ago was noticed to be peculiar, having seizures in which she cried and screeched violently without a cause. Latterly these spells have changed; she no longer cries, but seems to be seized with an uncontrollable nervous excitement, recurring with remarkable regularity every three weeks. In these she tears everything she can lay her hands on, her clothing, and particularly the buttons from the latter. Masturbation was discovered six months ago by a servant; but inquiry elicited that another servant had noticed the habit five years before, but had not spoken of it from motives of modesty. In her mental development she has, since her seventh year, been at least two years behind her age, and latterly has become very silly and forgetful. For this cause she had to be removed from the ordinary schools in her neighbourhood, and a trial at a boarding-school also resulted in a failure, as she disturbed the other children by crying out wildly at night in the midst of her sleep. The family physician succeeded in suppressing the habit; but while her memory improved she remained a wild girl, and associated a great deal with boys, on more than one occasion being barely prevented from accomplishing her instinctive purposes. An examination of the genital apparatus was made by him without eliciting any protest or signs of modesty on her part; but on the occasion of my own examination a month later she did. I found the hymen intact, the clitoris elongated and very irritable, and the nymphæ as well as the introitus discoloured, being bluish and purplish. There were no ascarides according to the history received. The child was sent to a convent school after the parts had been treated with cocaine, and a nearly complete recovery ensued, the child remaining irritable, but regaining her memory and having no further seizures.

Another type of onanistic derangement is related by Zambaco.* Two children (sisters), aged respectively four and eleven years, who had been taught the vice by a governess, developed melancholia, *tædium vitæ*, and ultimately had maniacal outbreaks in which they had hallucinations of diabolical figures. They had developed such morbid sensibility that a mere blow sufficed to originate an orgasm, and all therapeutic measures failed until the cautery was used, because the *constrictor cunni* had become so much developed

* "L'Encephale," i. and ii.

that the act could be performed without any aid from either the hands or the thighs.

XII.—*Masturbation from* 10*th to* 18*th year; silly demeanour, confusional delirium, anxious melancholia, partial recovery, relapses due to resumption of habit.*

Bertha A—, aged 20 years; no heredity; was always a quiet, retired girl; latterly she had been repeatedly discharged from the factories, at which she worked, for inattention, lack of skill, and indolence. She would make irrelevant and occasionally pert replies when remonstrated with by her mother. Became quarrelsome to an older married sister. At times she would give vent to a silly laugh; as a rule, however, she sat quietly moping. Her vice was discovered by accident, its extent was not determined; but from the fact that at a subsequent examination voluptuous reaction resulted from a mere touch of the clitoris, it may be assumed to have been carried far. Nothing pathological was found about the vulva, such as occurs in the case of older and inveterate devotees of self-abuse. She confessed to having practised it four years, but later admitted that she had learned the habit from another girl in her ninth or tenth year.

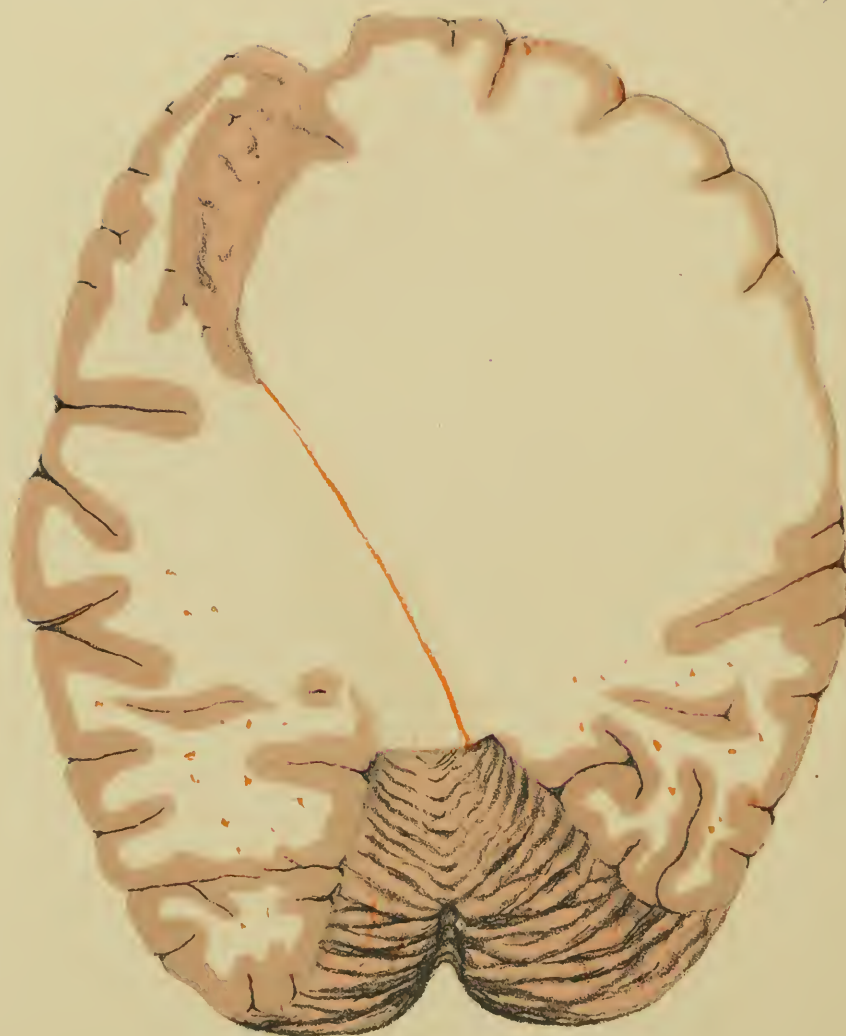
Her condition continued as described; she became more and more careless, neglectful of herself, and on expressing the wish to get married, in an aimless and silly manner, not only to her relatives but to casual visitors, and acting in a strange way at the window, so as to attract the attention of the men in a neighbouring workshop, her family brought her to me for examination. I found her then melancholy, mute, timid, and apprehensive. She was induced to abandon her habit, and took more interest in house work, but occasionally became abstracted, forgot matters, and more rarely broke out in silly laughter. Two months later she again had an attack of depression, and her relatives brought her to me again. On this occasion she had a very anxious countenance, and on passing a recess in the passage way, containing a *lavoire*, thought it was a hole into which she should be thrown. The patient, later, exhibited more confusion, depression, and silliness in behaviour. Her habit had not been resumed, according to the mother's account, at least not to any extent. But she expressed great jealousy of her sister for being married. She became abusive, uncontrollable, and was committed to the Bloomingdale Asylum, where she rapidly recovered. With the exception of occasional moody spells, she was normal; returned to her work, and five months ago became engaged to be married. The engagement was broken off because of occasional outbursts of silly conduct, which alarmed her *fiancé*. This did not materially affect her; she continued fairly well up to within a fortnight, when she began to find fault with her work, using unsuited materials, and condemning those she was ordered to employ. She resumed her habit at night, and on her mother's attempting to restrain her defiantly continued. In a silly

way she asked for a seal-skin sacque, and insisted on going out to walk the streets as a "fine lady." She tore her clothing purposelessly, and amused herself with throwing oranges at the ceiling so as to have them burst over her. She became confused and excited, and was sent to the pauper asylum.

In older female onanists the melancholic tendency, illustrated in the above case, is also noted, but there does not seem to be the same emotional depth as in true melancholia.

XIII.—*No heredity, masturbation from infancy, continued through married life up to the 34th year, querulous depressed state, morbid fears, recovery.*

Hannah K—, aged 35 years; married. Had an attack of depression in her twentieth year, in which she felt dependent and unhappy; supposed herself a "fifth wheel" at her parents' house, and recovered on being permitted to visit some friends and pay her own board. Since her infancy she has been an inveterate masturbator, and marrying shortly after the attack mentioned, and failing to find any gratification, she continued this practice till about a year ago, when she noticed signs of spinal exhaustion, and that they were aggravated by her acts. She has three fairly healthy children. On two occasions her husband has had financial losses, one of them, in 1873, resulting in total ruin, but this did not affect her. About a year ago other reverses rendered it necessary to economize, and it was concluded to keep a boarding-house. Previous to this she had been noted to be restless, vaguely anxious, excited, and talkative. A new stove agitated her. Visitors were welcome, but after they left, and she was alone, a feeling of oppression and dread came over her. Then she developed a morbid irritability, scolding the children without a cause, and then was excited for hours after from remorse. At other times she has an impulse to strike them, and has to exert much self-control to refrain from doing them an injury. At this time her will-power was frustrated, she had no initiative; her memory remained good for such matters as poems, classical plays, etc.; but regarding her domestic duties it failed, she would forget important ingredients in the dishes, regularly omit salt and pepper, and worry herself and others with complaints to this effect. She went about crying, abused the servants and annoyed the boarders till the latter concluded to go elsewhere, whereupon she fell on her knees, begging them to stay. The servants, children, and husband were worried by inconsistent orders. More recently she has become self-reproachful on account of her bad habit, also about the fact that she has lost all natural affection for a good husband and good children. On seeing a few gray hairs in her husband's beard she became very plaintive on the subject of the unhappiness she was causing. On one occasion she had a suicidal impulse, went out of the window on a pent-house, but felt timid and



To illustrate Dr. Percy Smith's Case.

G Barker delt.

West, Newman & Co chr.lith

returned to her room. She suffered from peculiar electric-like sensations. The left pupil was a millimetre and a half narrower than the right under moderate illumination. The tongue deviated markedly to the right, as a whole; vertigo was subjectively complained of, and there was a distinct Romberg symptom. She was clumsy in gait, tottering along and stepping on her feet or skirts in walking. The knee-jerks were normal. In speaking of her symptoms she was very communicative. On two occasions, having previously ascertained at what hours I was away from home, she called, deceiving her husband as to where she was going, came to my office, and there cross-examined the servant girl for an hour on each occasion, and on one was with difficulty prevented from penetrating to the family apartments to extend her inquiries further. She wished to learn whether I had not deceived her with a favourable prognosis, whether I had had other patients like her, whether they had been as bad as she was, and if any of them had committed suicide. She was taken to Parson's Retreat at Greenmont, and made a happy recovery. The disturbance of co-ordination and deviation of the tongue disappeared; a slight inequality of the pupils remained. If anything in her mental state could be questioned it was the feigned interest she took in the institution to which she owed her recovery, and to which she was instrumental in sending other patients.

(*To be continued.*)

Case of Secondary Carcinoma of the Brain, simulating General Paralysis of the Insane (with plate). By R. Percy Smith, M.D., A.M.O. to Bethlem Royal Hospital.

C. M. F., æt. 40, wife of an artist; had one child, aged six years. Admitted into Bethlem Hospital March 31st, 1887.

Family history.—One brother was formerly in Bethlem Hospital. He was admitted in 1876, suffering from melancholia, with ideas of persecution, and soon became weak-minded. He was placed on the incurable fund, and eventually died in 1885 of uræmic convulsions, the result of contracted granular kidney.

Previous history.—Patient was always considered "nervous," and earlier in life had some sort of convulsive seizures, the nature of which was not quite clear. Her husband had always been a little anxious about her mental condition. Two and a half years before admission she had suffered from cancer of the left breast, which was removed by Mr. Davies-Colley, and did not recur. There was no mental disturbance immediately after the operation, but the right pupil was noticed to be smaller than the left. For two years, however, she remained practically well.

Present attack.—In October, 1886, she began to complain of severe headache, frontal and occipital, and some giddiness; but beyond this her

friends did not notice anything more than a little strangeness of manner up to the end of January, 1887; and at this time she was able to travel alone. In February, however, it was noticed that letters which she began legibly ended in a scrawl which could not be read, or she would leave a letter unsigned. She also posted letters to different people in the wrong envelopes. She was noticed to do things mechanically and without interest. Her powers of drawing and painting became very much affected, and she took no interest in her husband's work, and, moreover, became untidy and neglectful in dress and dirty in habits.

At this time she had a succession of epileptiform fits, with constant vomiting, and had hallucinations of hearing. She suffered from what her husband called "utter mental collapse" after any attempt at carrying on a conversation; and after walking she was extremely prostrate physically.

She was admitted to Bethlem Hospital on March 31st, 1887, on certificates which stated that she had a vacant look, that she was under the impression that she had full possession of her powers, contrary to what was really the case; that she was dirty in habits, was unable to use her hands intelligently, and was losing power of walking.

On admission.—Patient was a dark-complexioned woman, with rather pale, muddy skin, with a vacant expression and languid manner, walking with a tottering gait and tendency to catch her toes in any obstruction; co-ordinate movements of the lower limbs were not well performed, and the gait was slightly spastic. She failed to stand with feet together and eyes closed, and had a tendency to fall forwards. Her knee-jerks were exaggerated. The movements of the arms were jerky, and there was an irregular tremor in the hands when an attempt was made to use them, and finer movements, such as in writing, were badly executed. The grasp was, however, fairly good and equal. Her appearance was slovenly and untidy. The left pupil was larger than the right, but both acted to light and accommodation, and there was no optic neuritis, and no affection of sight. The tongue was protruded slightly to the left, but was not markedly tremulous, and the left angle of the mouth slightly lower than the right; there was a good deal of smoothing out of lines on both sides of the face. She spoke very quietly and slowly, and as if with some effort, but the attempt to speak was not associated with fibrillar tremors. She complained of constant languor and fatigue and of sleeplessness at night, and occipital headache. Common sensation did not appear to be affected. She thought her friends had sent her here to get rid of her and that everyone was tired of her, but did not seem to have any hallucinations nor exaltation. For the next four months she remained very quiet and very weak physically and mentally; there was for a time some approach to exaltation in a feeling of well-being and of being quite able to do artistic work, though her drawing was like that of a child. The memory varied from time to time, but she

could by an effort generally recall her past history. She occasionally vomited after food, but neither vomiting nor severe headache were marked features at this time, the most prominent symptom being great general physical prostration, without any marked local paralysis or hemiplegia. By the end of September she had to be kept on a water bed as she was losing flesh rapidly, and there was fear of a bed-sore developing in consequence of the persistent incontinence of urine and fæces. During the next month she had occasional slight convulsive attacks ; her voice became extremely feeble and speech very slow, but still intelligible, and, although she recognized people, she quite failed to appreciate her condition.

By the end of November, however, a mental improvement took place, and she seemed to realize that she was paralyzed and about to die, and that she had no control over her evacuations, a matter which did not seem to have troubled her before. During this month the legs became gradually flexed till they were strongly bent up on the abdomen and rigid, the right being the most affected. There was ankle clonus in both, but most marked in the right. The left arm became drawn tightly up to the chest, flexed at the elbow and rigid ; the right arm less flexed, but with very little power in it, and she complained of pain in all her limbs. The left pupil still remained the larger, but the right angle of the mouth was lower than the left, and the face drawn to the left. Difficulty in swallowing came on, the neck became retracted and back hollowed ; there was now no vomiting and no headache, but she complained of constant wakefulness.

On December 13th, at 8.30 a.m., she had a general convulsive attack, but with head drawn to the left, and an hour later another, followed by flaccidity of the right arm and extreme dilatation of the left pupil. She then became comatose and died. The optic discs were examined so recently as the day before death, but there was no neuritis.

Post-mortem examination twenty-eight hours after death. The skull was found to be much thinned. The dura mater was normal, surface of brain dry ; no subarachnoid fluid visible, and convolutions much flattened on both sides of the brain as if by pressure within. The pia mater was thin, peeled readily off, except over a patch of the size of a half-crown, grey in colour and dense in texture, situated at the posterior extremities of the first and second frontal convolutions on the left side. The ascending frontal and parietal convolutions on the same side were very straight, and appeared to be pushed back. On removal of the brain it was at once noticed that the right hemisphere was much larger than the left, and that the inner side of the right hemisphere bulged over and hid the anterior two-thirds of the corpus callosum, and indented very considerably the left hemisphere. On cutting across the brain, immediately above the corpus callosum, the substance of the right hemisphere was seen to be soft and of an opaque white colour, the grey matter being pale and thin, and almost invisible in places,

whereas the left hemisphere appeared to be normal in colour and consistence, and was smaller than natural by reason of pressure from the opposite side. Beneath the surface, at the dense spot noticed above, there was a round nodule of new growth occupying the cortex and subjacent white matter, and about the size of a hazel nut. The septum lucidum was pressed over to the left; there was no excess of fluid in the ventricles. No defined tumour could be found in the right hemisphere, the whole of that side of the brain (except the occipital region) appearing to consist of diffused white, softish new growth, which pressed the corpus striatum and optic thalamus to the left, and flattened them out. The left crus cerebri was apparently stretched, producing distortion of the pons Varolii, but there were no naked-eye changes in the pons or medulla.

The cord was soft on section, there were no definite naked-eye changes noted, except some indistinctness of the grey matter. The rest of the organs were healthy. The scar of operation on the breast was quite free from any sign of recurrence.

Microscopically the growth was found to be scirrhous carcinoma.

The following appear to me to be the most interesting features of the case:—

1. The fact that the onset of the disease was marked by mental and physical failure together. Although cerebral tumours are in most cases attended with mental disturbance of some sort, the motor symptoms are, as a rule, earlier than mental, and, associated with headache, vomiting, and optic neuritis, generally give occasion for a diagnosis to be made before the onset of the final coma. The fact that there was collateral insanity in the family probably was the explanation of the early mental trouble.

2. In the fact of progressive dementia and general loss of power, associated with alteration of handwriting and speech, loss of expression, unequal pupils, some tremor of hands and general feeling of well-being, and the presence of epileptiform convulsions, the case resembled at one time the more quiet and demented form of general paralysis.

Although severe headache and vomiting had been early symptoms, they were for some time after her admission to the hospital quite absent; and, further, no optic neuritis existed throughout the illness. The paralysis, moreover, was never of the nature of marked hemiplegia, and there was no affection of the ocular muscles, and very slight loss of power in the face and tongue. Still the history of a growth having been removed from the breast, and the fact that towards the end of the illness the mental disturbance became less, so that on the day she died she became clear and

realized her condition, making the remark to the nurses just before she died, "Your reward shall be in heaven," were important factors against the diagnosis of general paralysis. With regard to the latter point, however, I may remark that a patient who died of undoubted general paralysis a short time ago in Bethlem Hospital had a somewhat similar clearing up of dementia, and on the day he died said to me, "I'm dying; I've run through my life." The case now reported agrees with Dr. Mickle's remark that it is the progressive dementia of general paralysis, and not its expansive delirium, which is simulated by cerebral tumours.

In the fact of considerable convolutional affection, the case agrees with the statement of Dr. Clouston as to the frequency of such a condition in cases of brain tumour associated with insanity.

3. The absence of optic neuritis throughout the case is unusual; the eyes were examined the day before her death, and not the slightest sign of any change was observed. There was no affection of sight, and in connection with this it may be observed that the occipital lobes were unaffected.

4. Dr. Clouston, in his work on mental diseases, remarks that different authors have had different experiences as to the frequency of brain tumours in the deaths of the insane, varying from 2 per 1,000 deaths up to his figures, 28 per 1,000, and that it is doubtful whether brain tumours are more frequently found in autopsies in lunatic asylums or general hospitals. With regard to the latter point I have looked at the annual tables in St. Thomas's Hospital reports and find that in the last four years there have been 1,254 deaths in the medical wards, and of these 27 died of cerebral tumour. This is about 21·5 per 1,000, and, therefore, below Dr. Clouston's figures.

General Paralysis in Twins. Cases reported by Dr. CLOUSTON and Dr. SAVAGE.

Several interesting examples of the insanity of twins have been recorded in this Journal. No instance, however, has been published in any journal of insanity as occurring under this condition, in the form of general paralysis. The first case is reported by Dr. Clouston, from whom we have received the following notes; the second case was that of a patient in Bethlem Hospital, under the care of Dr. Savage.

(1.) B. H., æt. 37 on admission to Royal Edinburgh Asylum on the 18th April, 1885.

Family History.—Father died of consumption at 60; was a sensible man, but irritable. Mother died over 70, a placid, gentle, but determined woman. There is no history of insanity, epilepsy, or excessive drinking in ancestry.

There were nine sons and daughters, all more or less clever, and none of them ugly or malformed. One sister, second child, was a little "peculiar." Another, the third, was not "sensible," being emotionally religious, excitably hysterical, and given to lying in bed for months for no sufficient cause. B. and J. were born sixth, being twins. Their temperaments and bodily aspects were quite different. J. was short, rather stout, not imaginative, and easy going. B. was thin, sharp, enthusiastic, ambitious, and irritable. Both became commercial travellers at about 18 years of age. B. did an enormous amount of work in a very keen way, and was reckoned one of the best travellers in his line. His mode of life was the following: He would do his work keenly all day, taking two or three "whiskies" when at work, and some wine at lunch. He would take a fair amount of champagne with his dinner, and would then sit up playing cards and drinking moderately but continuously till about 4 a.m. He was a small eater. J. was a large eater, took too much liquor too, usually whisky and bottled porter. B. never got excited with liquor, or obviously drunk. Both twins were fast with women before marriage. B. was evidently very sexually inclined, for he would often take an "actress" to supper, and have connection with her four or even six times before morning, and this took place every six weeks or so. There was no history of syphilis. He married in 1879, and had connection with his wife night and morning regularly when at home. They had no children. In 1883 B. "went mad" over bicycling, and got many falls. In the spring of 1884 his wife thought he showed signs of his mind and brain giving way. After that he got depressed and could never again do his work well. He gave up liquor from that time. He had been subject to no bodily complaint but indigestion. The first mental symptoms were depression a year before he became insane, this gradually passing off, followed by elevation, with exalted ideas, foolish, extravagant acts, useless purchases, great ideas of his strength, wealth, and power in his business, his "temper" becoming ungovernable. All this came on a few weeks before admission.

I saw him in consultation with Dr. Gibson a few days before admission, and found well-marked symptoms of general paralysis in the early stage to be present.

He was admitted to the Royal Asylum, as stated, 18th April, 1885, and was then very exalted mentally, saying he was to be made a partner in his firm, was to live in a great house in London, and keep a carriage, and at times that he was king of the country. He was much excited and restless; his memory was impaired and unreli-

able. He had some delusions of suspicion as to electricity being "worked" on him, and that he had been "drugged" and then throttled in his sleep by some detectives. His speech was slurring and the facial muscles of expression slightly tremulous at times, his reflexes exaggerated, sensory power normal, tongue tremulous, pulse 79, regular, temperature 98·8, weight 9st. 4lbs.

For about a week he got more quiet and rational, then he began to express ideas as to being a wonderful linguist, uttering a lot of gibberish and saying it was Hebrew, Arabic, and Greek. He then got more excited, began to ornament himself with feathers and—fatal sign—sticking flowers in all his button-holes, and generally to demean himself like a typical general paralytic in the first stage. He soon got very noisy at night. He gained, however, by dint of extra feeding, 15lbs. in weight in the first three months. His speech scarcely got perceptibly worse in that time. In four months he became less excited and rather depressed in mind. Instead of everything being fine in the asylum, as at first, he said it was all very bad, that he got no food, and that he was badly treated. He began to wet his bed about this time.

In a year he had passed into the second stage, the pareses of speech and walking being very well marked. Mentally he was more lethargic and quiet. Paraldehyde in two-drachm doses gave him good, sound sleep, and stopped the noise, filth, and excitement that he was subject to at nights.

After a year and a half's residence he might be considered to have passed into the third stage of his disease, being stupid, dirty in his habits, noisy at night, with his delusions of grandeur still present, though more incoherently expressed. In another three months he was lying on a water bed, contracture taking place in his limbs, especially on the right side, and rapidly losing weight. On July 27th, 1887, he died. His wife absolutely refused a post-mortem examination.

His disease may be said to have existed for a year in the preliminary stage of volitional loss of force, intellectual confusion, and emotional depression; for another year in the exalted, inco-ordinated first stage of recognizable general paralysis; for six months more in the second torpid paretic stage of that disease; and for nearly another six months in the third terminal paralytic stage.

The most noticeable features of the case were:—

1. That he was a twin.

2. That mental neurosis existed, but to a very small extent, in his family.

3. That he came of an able, sensible, energetic family on the whole.

4. That he was of a sanguine temperament, and was ambitious, restless, and keen.

5. That he led exactly the kind of life to develop general

paralysis, viz.: an exciting, responsible, energetic, active one, with none of the restfulness that comes of fixity of hours or occupation in it.

6. That he poisoned his brain by an excessive use of alcohol up to stimulation, but falling short of drunkenness.

7. That he exhausted his brain by excessive sexual intercourse.

8. That at 36 he showed the preliminary signs of general paralysis, developing the actual disease unmistakably the following year.

9. That he took the disease within twelve months of his twin brother, who had led the same sort of life.

10. That the disease ran a normal course as to symptoms and duration. T. S. C.

(II.) J. H., aged 38, married; engaged in business; four children, two only living. No neuroses in parents. One brother, a twin, suffered from and died of general paralysis of the insane at the Royal Asylum, Morningside. (Foregoing Case.)

Father and one sister died of phthisis. The patient never had any serious bodily illness, he was sober and never had syphilis. He had had business worry.

The first signs of mental disorder were noticed 12 months before admission to Bethlem, Nov. 9th, 1886, when he became excitable, quarrelsome, and apt to forget his business engagements. He was also emotional, and on one occasion attempted in a silly way to smother himself. He wandered from home in an objectless way. He complained of tinglings in his extremities.

I saw him a short time before his admission into Bethlem, when he was weak-minded, but did not seem to need seclusion. Later he became difficult to manage, and so he was certified. On admission it was said that he had shown marked signs of insanity for six months, and overwork and worry were given as the causes. He was said then to be incoherent in speech, to mistake people whom he knew perfectly, to have very false and exaggerated ideas of his wealth. He said he was a great friend of the Queen, the Prince of Wales, and other great persons. He said, too, that he had many wives.

He was constantly restless, sleepless, and at times violent. Tongue furred, tremulous. Speech thick and indistinct. At times he refused his food; appetite bad. He passed his stools under him. His heart and lungs were normal. Pupils equal, reacting.

Common sensibility generally impaired; reflexes subnormal and delayed; walk feeble and tottering; skin sweating, greasy, especially about the face. He was obstinate and self-contained, but with aspect of silliness rather than that of misery. He had to be fed by the spoon.

After a few weeks in Bethlem he became brighter, though still silent. He was more clean and easily managed. There were at this time noticed to be some twitchings of the facial muscles.

Dec. 3.—He was shouting and accusing another patient of being a murderer.

Dec. 10.—Since admission he has lost ten pounds in weight; pupils now irregular and unequal. He is restless, constantly pulling at the buttons of his coat.

During the spring and summer of 1887 he remained in a very uninteresting state. He would lie in the arm-chair, taking no notice of anyone or of anything around him. He would eat all that was put into his mouth, but he could do nothing to help himself. At times, if interfered with in any way, he would screech out. He had no local palsies and no fits, but he was generally too weak to stand. He was wet and dirty.

In October severe intractable diarrhœa set in, and he slowly sank and died, without a single gleam of returning reason, on October 18th, 1887.

Post-mortem examination October 21st, weather very cold and dry. Body much wasted; no bedsores or bruises; no special muscular wasting, but both great toes were firmly inverted.

Scalp hairy, calvaria thick, heavy, and dense. Dura mater depressed along middle line by pacchionian bodies. Arachnoid not specially thick, but there were several small lakelets of sub-arachnoid fluid, one at junction of first frontal with ascending frontal convolution on left side. Frontal convolutions were generally much wasted, and there was excess of fluid present. Whole brain weighed 37 ounces, lateral ventricles dilated with fluid.

Grey matter throughout of good colour, rather darker than usual; white matter firm, with numerous puncta. Arteries of brain only slightly atheromatous. No granulations on the floors of the ventricles. Medulla and cord normal to naked-eye appearance. There was slight grey degeneration of the posterior columns in cervical region of cord. No apparent change in lateral columns. Heart firm, small, 8 ounces. Aorta very atheromatous. Kidneys small, normal. Liver 37 ounces, normal; marked acute or chronic changes with degeneration in left lung.

G. H. S.

A Case of Insanity of Adolescence. By JOHN KEAY, M.B., Mavisbank Asylum, Edinburgh.

David A., 20 years of age, was admitted into the Crichton Institution on 31st May, 1886.

The history of the case showed that the patient was a medical student of the second year, steady in his habits, a diligent reader, and possessed of considerable ability. No hereditary neurotic tendency could be traced. He had laboured under delusions of

suspicion for nearly a year. He believed that he was followed by men who intended to murder him, and he therefore carried a knife to be used in self-defence. He suspected that his food was drugged and he "heard voices."

The patient, on admission, was pale and thin, but muscular and exceedingly active. His temperature was normal, his pulse good, and his appetite fair. He was depressed, reticent, and suspicious. He was ordered a light but nourishing diet with abundance of milk, and in addition a teaspoonful dose of Parrish's syrup three times a day. His bowels were in good order, and he slept soundly. He played cricket, and took walking and driving exercise.

On the evening of the 3rd June he became excited and demanded to be allowed out, stating that there were people in the place who wished to kill him. His request not being complied with, he attempted to escape, and struggled violently with the attendants. Having been carried to his room and put to bed, he soon became quiet, and afterwards slept well. Next day when walking in the grounds he made several attempts to escape, and these were on other occasions frequently repeated.

During the night of the 8th June he escaped by breaking the iron frame of his window. He was captured and brought back to the asylum on the 10th, but he again succeeded in getting away on the 12th, this time also by smashing the window frame and jumping out. On the 25th, after being absent twelve days, he was brought back. He was thin, but hard and strong, and surprisingly active.

His life now became a continual struggle. His only desire seemed to be to get away. He rushed at windows and doors, and struck, bit, and kicked his attendants in blind fury. When reasoned with he expressed regret, but explained that at times the longing to escape, as he had done before, came upon him with irresistible force.

It is not to be wondered at that signs of failing strength soon appeared. He lost his appetite, which had hitherto been good, and he slept badly. At the end of July a hæmatoma in the left ear appeared, to which a blister was applied with great benefit.

On 9th September it was noted that he continued to lose strength. His appetite had not improved, and morning vomiting became troublesome. He weighed only 87lbs., and showed a loss of 3lb. in as many weeks. The temperature now began to show an evening rise, generally of a degree, or a degree and a half, and the pulse was weak. His diet consisted of eggs and milk, strong beef tea, and alcohol in small doses. The syrup of the phosphates was discontinued, and tonics, gastric sedatives, and digestives were tried in turn. Mentally the condition of the patient was most unsatisfactory. His habits became dirty ; the delusions of persecution continued, and he seemed to be sinking into dementia. He was now confined to bed.

On 1st October the patient's head was shaved and a smart blister applied to the scalp. The vomiting was immediately arrested, the appetite increased, and 5½lbs. in weight were gained in a week. Unfortunately

the improvement was not a permanent one. A new difficulty arose in the form of hæmorrhage from the rectum. On examination an abscess was discovered in front of the bowel and ℥ii. of pus were immediately taken from it. Doubtless the patient caused the bleeding by lacerating the rectum with his finger nails. The loss of blood was a serious one. The pulse became small and frequent, temporary retention of urine occurred, vomiting returned, and the evening rise of temperature became well marked.

On the 3rd October an abscess behind the left parotid gland was opened. On the 16th ℥xviii. of pus were removed from a deep burrowing abscess in the right thigh. On the 18th ℥xv. were removed from another in the same region. The right knee became swollen and full of fluid. An abscess of the right parotid had to be opened, and, in fact, almost every day a new collection of pus was discovered in one part of his body or another. It is remarkable that notwithstanding this state of matters the patient gained 7½lbs. in weight in the fortnight ending the 18th. Inequality of the pupils was very frequently noticed, and it was nearly always accompanied by flushing of the left side of the face and neck. Headache, localized a little in front of the left parietal eminence, was constant in greater or less intensity, and there was tenderness on pressure.

A serious difficulty in the treatment of the case from this time was the persistent refusal of food. Six times a day eggs, milk, beef tea, and brandy were administered in small quantities. Forcible feeding by the mouth or nose tended to induce vomiting, and owing to the state of the bowel rectal alimentation, which in other circumstances would have been such a valuable aid, was out of the question. Progressive and rapid loss of weight now took place. The pulse became very weak and rose to 120 per minute, and the evening temperature to 103°.

On the 29th October new openings for the removal of pus were made in the right thigh and right cheek, after which the patient's exhaustion was extreme. On the 31st a large mass of sloughing cellular tissue was removed from one of the abscess cavities in the thigh. On the 2nd November he died.

At the post-mortem examination, held on the following day, the appearances of interest were the following :—

There were recent adhesions on the surfaces of both lungs, the lower lobe of the right lung being firmly adherent to the diaphragm and intensely congested. It weighed 27½oz. When the adhesions were being broken down there was noticed on the right side close to the vertebral column a nodular swelling, soft and fluctuating. This was accidentally punctured and about 8oz. pus escaped. It was evidently an abscess following septic inflammation of the posterior mediastinal glands. The pericardium contained 2oz. straw-coloured fluid. The heart was firmly contracted. The valves were healthy. In the posterior wall close to the branch of the coronary artery in the interventricular sulcus was a small abscess bulging under the pericardium. The right kidney was slightly congested. In the left two

infarcts were found in the cortex, each occupying a superficial area of $\frac{1}{4}$inch square.

The dura mater was more than usually adherent to the skull cap, especially at the parietal eminences and along the line of the superior longitudinal sinus. The arachnoid surface of the dura mater was found adherent to the surface of the brain along the great longitudinal fissure for about $4\frac{1}{2}$ inches from the vertex backwards, and when these adhesions were broken down small spots of lymph were noticed on the surface of the brain at that part. The brain was soft. The ventricles were not distended. No collection of pus was discovered. The brain, including medulla and cerebellum, weighed $51\frac{1}{2}$oz.

The case here recorded I have regarded as one of Insanity of Adolescence, notwithstanding the many points in which it differs from those usually classed as such. Mental disorder occurring at the period of rapid growth preceding full development generally takes the form of mania. There is exaltation with a great deal of conceit, and the ideas and delusions, if they exist, are of a sexual and religious nature. Such cases exhibit, in a greatly exaggerated and distorted form, the mental state of most people at that period of existence. They are patients capable of causing a great deal of trouble in an asylum. They are subject to relapses, sometimes occurring over and over again; but they generally ultimately recover. In this case there was depression, and it was never varied by a period of exaltation. Melancholic adolescents are, I think, generally unfavourable cases, very subject to suicidal impulses.

D. A. did not seem to have any sexual ideas or delusions whatever. The religious element was present though; he thought he had committed an unpardonable sin and was going to hell.

The case was an unfavourable one from the first. The hallucinations of hearing had existed for a considerable time before admission, and the hæmatoma auris developed when the patient had scarcely been two months under treatment.

The injury to the rectum and possibly the prostate by lacerating with the finger nails was doubtless the starting point of the pyæmia. Curiously enough no rigor was observed, and profuse sweating only once, and these are said always to occur in pyæmia, particularly at its onset.

The post-mortem phenomena were those usually seen in cases of blood poisoning. Changes in the brain are not commonly produced by this disease, and the inflammatory patches and adhesions observed were probably of longer standing and not pyæmic at all.

OCCASIONAL NOTES OF THE QUARTER.

The Sussex County Asylum Appointment.

This Journal being the organ of the Association of Medical Officers of Asylums, the editors consider it their duty to consider any special question which may arise in reference to the filling of asylum appointments.

The recent election to the Superintendentship to the Sussex County Asylum has been brought specially before their notice, first through letters to the weekly medical press, secondly through a numerously signed protest from assistant medical officers to asylums, and lastly through the meeting of the Association called to consider the subject of the appointment.

We feel that, whatever our own ideas may be, we must, in our editorial capacity, endeavour to give expression to the sentiments of the Association as enunciated at the special meeting referred to. In following this course we shall avoid noticing certain collateral points which, being now parts of history, cannot be altered by our comments.

It is but natural that many assistant medical officers should be disappointed and indignant with what has occurred. The grounds of their discontent are twofold. First they consider that the qualifications demanded were of an exclusive character, and higher than those usually required ; and secondly, that the selection of a gentleman who had never had any residential experience of asylums was unjust to them.

First, then, as to the qualifications, it must be admitted that they were quite exceptional in their very exclusiveness. It is true that they were part of the rules of the asylum as passed by the Secretary of State for the Home Department in 1870, but it is well known that the Secretary of State only acts in a magisterial capacity in signing the rules of asylums, and the medical and other officers have really the fixing of the standard.

It seems to us a pity that the double qualification of a British University and the College of Physicians should be required from applicants for such appointments. We believe that the mesh should be very wide, so that the appointment should be open to all who, in addition to possessing practical

knowledge of lunacy matters, are properly qualified to practise their profession. No good can be gained by excluding the great majority of men who have devoted their lives to the special branch of their profession.

In old days there were greater distinctions between the superintendent and the assistant medical officer, who was in many cases called the apothecary. Nowadays each requires the same training, and each should be able to take the work of the other. If other English asylums had required similar qualifications some of the very best men in the speciality would have been excluded. We are not aware of any other county asylum in which the same qualifications as those in force at the Sussex asylum are required.

The second ground for dissatisfaction was that a gentleman had been appointed whose training had not been that of an assistant medical officer to an asylum.

We would not desire to have a law which makes it impossible under exceptional circumstances to appoint an exceptional man, but we hold that a preference should be given to men with asylum experience, and we sympathize with those who consider that they have been passed over unjustly, and that they have been treated as if their training in asylum management was of no value when compared with local and other interests.

It seems scarcely consistent of those who object to Committees of Visitors giving the preference to candidates who have served in asylums, on the ground that good outside men might thereby be excluded, to defend an exclusively framed standard of qualifications which must necessarily put out of court a large number of legally qualified men experienced in lunacy.

Surely no one who has any practical knowledge of the duties of a superintendent can deny that these duties will be done better by a man with experience than by one without such practical knowledge. The most assiduous out-door student when he comes to live for the first time in an asylum is struck by the difference between theoretical and practical knowledge of the insane, and the superintendent without such practical experience is to be pitied (as well as his patients). The speciality seems, indeed, bound to have difficulties thrown in its way. It has taken some time and much labour to get assistant medical officers to devote their time and attention to the higher branches of their profession, and when this is done they are not rewarded but

ignored, and, moreover, even those to whom they have looked for encouragement have told them, in effect, that those who have had no training are as good as they.

We refrain from referring to any other details of this election, but feel that the sympathy of the Association is due to assistant medical officers who, having done their duty and merited reward, have been passed over partly because of a rule which might have been altered and the alteration sanctioned before the election, and partly because of certain causes which are alleged to have weighed unduly against them. (See "Notes and News.")

Judicial Eccentricities.

A case occurred lately in the Law Courts which illustrates the great uncertainty of judicial proceedings. Judges are fond of asserting that their proceedings are only in accordance with the requirements of the law, yet they differ to an important extent in the course they pursue in reference to prisoners charged with crime and suspected to be insane. A labourer, named Taylor, was indicted before Mr. Justice Day at the Leeds Assizes for the murders of Annie Taylor and Thomas Berkill (Superintendent of Police), at Otley, in November last. A jury was impanelled for the purpose of ascertaining whether the prisoner was fit to plead or not. Medical men, including Dr. Clifford Allbutt, gave evidence as to the extraordinary delusions under which the prisoner laboured. He believed that he was sent into the world with four endowments, "health, strength, knowledge, and prosperity." Another delusion was that he had a little man in him, and that he had a dual nature. He asserted that the Almighty had impelled him to commit the above acts. On another occasion he said he could not have killed his daughter and Berkill, as God had said "Thou shalt not kill." At other times he seemed to forget entirely the death of his daughter, but had some recollection of the death of Berkill.

It is by no means unusual for a judge to desire to have the opinion of a medical witness as to whether the prisoner is of sufficiently sound mind to be able to plead. Mr. Justice Day, however, would not allow the medical men to give their opinion as to the prisoner's sanity. On the contrary, he said that to do so would be, in his opinion, to usurp the

functions of the jury, and he could only allow them to state facts upon which the jury might draw their own conclusions. After an inquiry lasting over three hours, the jury found the prisoner fit to plead, and Taylor was accordingly put upon his trial.

Although we have only referred to this case in order to note the curious disregard of medical opinion on the part of the judge, we add the report of the trial from the newspaper.

"Mr. Hardy opened the case for the prosecution, and stated that the prisoner, his wife, and two children lived at Otley, and a man called Hartley lodged in the house. Hartley came home a little before midnight on November 23. Between two and three o'clock the following morning the whole household was stirring. The prisoner said he would fire a gun up the chimney to make the fire burn better. Mrs. Taylor, being alarmed, went out of the house, carrying with her one of the children. Hartley also left, and as he was going he heard the report of a gun, and on turning round saw the prisoner pointing the gun in the direction of his wife. Mrs. Taylor went to the house of a neighbour with the child, when it was discovered that it had been badly shot. It died about two hours afterwards. An alarm having been given, a policeman, called Shipham, went to the house for the purpose of arresting the prisoner, and found that he had locked himself in. The prisoner called out, 'Come on; I am ready.' Other constables were called to the house, and eventually Superintendent Berkill came upon the scene. Berkill rattled the latch of the door, and was attempting to open the door with a crowbar when a report of a gun was heard. Berkill fell down at once, shot in the head, and survived the terrible injuries he had received only a few hours. At the time the prisoner was seen pointing a gun from the inside in the direction of the deceased. The glass of a window was broken by the shot. Some time afterwards the prisoner was seen coming out of his house with a shovel. A constable, seizing a favourable opportunity, made a rush at Taylor and effected his arrest. The prisoner was taken to the police-station, and when charged with the murder of his child he said, 'It's all my eye and Betty Martin.' In reply to the charge of murdering Superintendent Berkill he said, 'I think I have done a bit too far with drink this time.' At the close of his address, Mr. Hardy stated that delicate questions as to the state of the prisoner's mind might arise; and if they were of opinion that the prisoner had shot

Berkill in the way described, they would have to consider whether or not at the time he knew the nature and quality of the act he was doing. The jury found the prisoner guilty, but that he was insane at the time he committed the acts; and the learned judge ordered him to be confined during Her Majesty's pleasure."

In another instance the course pursued by the Judge, Mr. Justice Field, is as eccentric as that of Mr. Justice Day, and is even more decided in the rejection of medical evidence. In February of this year a young man, Ernest Hitchins, aged 21, the son of a surgeon, was tried for the murder of his sister Constance at Weston-Super-Mare. He had been subject to epileptic fits, and remained at home on that account. The sister was 25, kept the house, and the prisoner had to go to her for his money. He did not like her. On the evening preceding the murder he was observed to be very restless, walking about, and he looked sullen. A servant gave evidence that he had applied to his sister for something which she could not give him. Next morning both the prisoner and his sister breakfasted in bed. Another sister, who took him his breakfast, noticed nothing unusual. In the course of the morning the report of a gun was heard in the sister's room. The door was fastened. The father forced it open and found his daughter fatally shot. Hitchins was there, rising from the ground with a wound on his face. He dashed out of the room, rushed down stairs, and threw himself against the wall as he went. He tried to throw himself into the empty grate in his father's private room. He was then put to bed, and gradually became quiet, and is said to have known what he was about. He told his father to look in the pocket of his coat and find a paper. In this he had written, "I leave everything that belongs to me to my dear mother. I have been treated so badly by that beast, my sister Constance, that I must put an end to her life by shooting; and, knowing that I shall have to die for it, I also shoot myself. Good-bye to all, hoping you will have a happy time of it. Good-bye, dear father and mother."

Prisoner afterwards said, "She was very unkind to me; she has been a bad one to me." The counsel for the prosecution urged that deliberation was shown by writing the above over-night, and further, he had gone downstairs to obtain the gun and cartridges in order to effect his purpose.

The prisoner's mother had been insane. Before his birth she attempted to commit suicide, and was placed in an

asylum. There was no other case of insanity in the family.

Now comes the extraordinary feature of the case from the judicial point of view. Mr. Justice Field, in addition to treating the medical witnesses with studious rudeness, refused to receive their opinion as to the sanity of the prisoner. When Dr. Needham had given his evidence and expressed an opinion that he was insane, his lordship said he was determined not to allow a medical gentleman, however eminent, to be substituted for the jury. Again, when the gaol surgeon was asked whether he formed any opinion as to what the prisoner was suffering from, and he replied that when first brought in he thought he was imbecile, the Judge objected "that is answering the question that I did not wish you to answer." When counsel asked whether he might inquire whether the prisoner was suffering from disease, his lordship replied, "Bodily, Yes; mentally, No." When Mr. Bucknill suggested that the opinion of a medical man regarding a prisoner's state of mind now might assist the jury in arriving at a conclusion as to his state when the act was committed, Mr Justice Field said, "I shall rule clearly not. The jury see what his conduct and appearance are and have been. I don't see that the opinion of a medical gentleman carries it a bit further. *He could no more dive into a man's state of mind than I can.*"

It will be remembered that a similar opinion was expressed by the present Lord Chancellor in one of the debates on the Lunacy Bill last session.

In summing up, the Judge said that he "was constantly obliged to tell juries that, in order to find out the mental condition of a man, his intentions, or what had passed in his mind, the only safe mode was to judge by what he did. When was a man responsible to the criminal law of the land? It was when he was in such a state of mind as to know right from wrong, to know what was the nature and quality of the act which he did. Did the prisoner in this case know the nature of the act which he committed, that it was condemned by the laws of God and man, and that, if he committed it, he would have to suffer even death for it?"

That the prisoner knew that he was committing murder, and that the punishment of murder was death, was shown by the prisoner's own remark, "Knowing that I shall have to die for it, I also shoot myself," in his letter to his parents. It is clear, therefore, that he knew the nature and quality of

the act he committed, and that he was therefore responsible in the eye of the law for it. Fortunately, however, the jury found that the prisoner was of unsound mind when he committed the act.

If it be said that there is a distinction between asking a medical witness his opinion as to the state of a prisoner's mind at the time he committed the criminal act, and the time when he is called upon to plead, it is noteworthy that, while Mr. Justice Day refused to accept the latter, Mr. Justice Field implied that he would not have rejected a medical opinion as to a prisoner's sanity had it been a question of whether the prisoner was in a condition of mind which rendered him capable of pleading. There remains, therefore, a puzzling inconsistency between the ruling of different judges on a most important question in respect to which one would have thought uniformity might have been attained, so that counsel might know what questions they are permitted to put to mental experts.

Lunacy Acts Amendment Bill.

This Bill has been once more brought in by the Government. What amendments may be introduced in its progress through Parliament we do not know. None were introduced when the Bill was read a second time in the House of Lords (March 2nd). The alterations made by the Lord Chancellor are very slight. The Bill is substantially the same as that which was introduced by Lord Selborne in 1883, by Lord Herschell in 1886, and again passed in the House of Lords by the present Lord Chancellor in 1887.

The objections made by the Medico-Psychological Association to the leading features of the Bill remain unaltered. The main modifications in the clauses of the previous Bill have reference to registered hospitals. It is greatly to be regretted that some important points to which a deputation from the Association drew the attention of the Solicitor General (Sir Edward Clarke), the objectionable character of which he did not deny, have not been recognized in the present Bill.

Very little discussion followed the introduction of the Bill into the Upper House by the Lord Chancellor. The Earl of Milltown hoped that the Bill might become law, and that no

obstruction in the House of Commons would prevent so important a measure being passed. He returned, however, to his former attack upon private asylums. "He regretted that the Government had not taken steps to put an end to the scandals which were alleged to exist in connection with licensed houses. As long as what Lord Shaftesbury called 'the evil system of profit' continued to exist, as long as the incarceration of a fellow creature should result in profit to anyone, so long might they expect a continuance of the scandals to which he alluded. He noticed, therefore, with regret, that existing licensed houses were not to be interfered with. The only way to prevent scandals would be by a thorough system of visitation, but the present system could not be thus described, the Lunacy Commissioners being too few in number to inquire closely into the cases of 80,000 lunatics. He favoured a scheme under which county authorities should establish houses for paying patients. The authorities, he felt sure, would be the gainers. There was a large number of persons in asylums who were supported at the public expense, and who were able to support themselves; and if provision were made for receiving paying patients at moderate rates the expenditure of the counties might be considerably reduced."

Weak-minded Children.

In the last number we advocated certain intermediate schools for the weak-minded (Jan., 1888, p. 552). We are glad to receive the support of so experienced and intelligent an authority as Dr. Shuttleworth, the medical superintendent of the Royal Albert Asylum, Lancaster, who communicates the following observations upon *The Education of Children of abnormally weak mental capacity*:—

The reference in the last number of "The Journal of Mental Science" to the "auxiliary" schools established in Germany for exceptionally backward children* may serve to draw attention to an important hiatus in our English educational system. Whilst exceptionally quick children are in every rank of life well provided for, and amongst the poor facilities for higher education are given (at any rate, in large towns) in connection with the Board Schools, no systematic effort has so far been made in this country for the special train-

* Occasional Notes of the Quarter, p. 552.

ing of those children whose abnormally weak mental capacity renders it impossible for them to keep pace with the requirements of "the code." It is true that the institutions for imbeciles and idiots are intended for the education and training of the class designated in America as "feeble-minded," as well as, or perhaps more than, of cases of graver mental defect; but considering the paucity of such institutions, and the undesirability of stigmatizing as *idiotic*, or even as *imbecile*, children who are not irretrievably deficient, the plan of auxiliary classes and schools deserves serious consideration by our educators. It may be of service in this connection to quote from an excellent paper by Herr Kielhorn, of Brunswick, which appeared in the "Zeitschrift für die Behandlung Schwachsinniger und Epileptischer" for March, 1887. "The auxiliary school," he says, "is designed for such children as after a trial of at least two years in a town school (*i.e.*, public elementary school) have not been able to be promoted, so that an equal progress with their school-companions is impossible. On the other hand, those children are excluded from attendance at the auxiliary school who, in consequence of too low mental capacity, or of too great bodily infirmity, or of insufficient domestic care, are better assigned to a special institution. . . . The school consists of three progressive classes; a division of the sexes only comes in as regards certain departments of instruction. The subjects of instruction are :—Religion (Scripture history, catechism, hymns), the German language (reading, orthography, scripthand), calculation, writing, cultivation of the perceptions, domestic knowledge, singing, gymnastics, manual work.

"In the auxiliary school it is essential to develop in every way the combined mental and bodily powers of the children to the utmost extent possible, to train them to useful activity, to mannerly living, to elevated enjoyments—in fine, to an existence worthy of human beings. As the teacher must specially adapt himself to the peculiarities of each child, and, having regard to the small mental capacity of his pupils, make sure by constant repetition of what has been learned, the scope of instruction must necessarily be restricted."

There follows a detailed account of the course of instruction pursued, which in its main features resembles that in vogue in our imbecile institutions, stress being laid upon the cultivation of the senses and the perceptive faculties, exer-

cises in distinct articulation, objective illustrations of all lessons, especially in connection with calculation, and finally the training of the hand for simple industry. In the discussion which followed the reading of Herr Kielhorn's paper at the Frankfort Conference, testimony was borne to the utility of the auxiliary classes in connection with the public elementary schools at Gera by Dr. Bartels, who insisted on the high qualifications requisite for the successful teacher of such classes. He refers also to the dictum of the Minister of Education (von Gössler) that auxiliary classes should be instituted in every town of 20,000 inhabitants and upwards. Another speaker (Horny, of Nassau) related how in his city it had been necessary to change the name of the classes, which had originally been designated for "idiots," first to classes for "weak-minded" (Schwachsinnige), and then (to prevent misunderstanding) to classes for "children of feeble faculties" (Schwachbefähigte). This would seem to have been a nominal concession to the sensitiveness of parents.

Similar classes have for some time past been established in Norway, and I am indebted to my friend, Herr J. A. Lippestad, Director of the Thorshang Institute, who founded such classes in 1874, for some interesting particulars with reference to those in operation in Christiania. He tells me that in this city the "abnormal" children in public elementary schools bear a ratio to the ordinary school children of ·4 per cent. (60 : 15,000), and that there are, besides, thirty children belonging to the city in special institutions for the feeble-minded. The classes are held each afternoon in two of the public schools, distant not more than a mile and a half from the homes of the pupils. These are selected from the ordinary scholars upon the report of the teachers made to the head-master, who thereupon confers with the Director of the Auxiliary Classes as to the necessity for special instruction in each case. The requisite funds are provided through the School Board, and the annual cost is about £6 15s each pupil. The children attending these classes may be divided into four categories, viz. :—

I. Those who after two or three years' special teaching can be brought back into the ordinary school.

II. Those who, continuing in these classes, can be brought to confirmation.

III. Those for whom these classes are found insufficient. Such, after being tried for a time, are sent to special imbecile institutions.

IV. The utterly ineducable, who, after full trial, are dismissed to their homes.

Special teachers are employed for these classes who have been trained for the purpose at institutions for feeble-minded children.

Similar auxiliary classes are conducted in connection with the public schools of Bergen by Herr Soethre, also director of an institution for imbeciles.

With such practical Teutonic and Scandinavian precedents, there would seem ample encouragement for the movement in favour of schools for "intermediate cases of mental feebleness" in London and other large towns. I ventured in 1884, at the Conference on School Hygiene held at the Health Exhibition in London, to suggest that* a "school should be established in every large centre for the backward children who were not able to bear the strain of the ordinary curriculum. After a certain time spent in such a special school a selection might be made, and some would be fit to enter an ordinary school, whilst others ought to be sent to a special training school for feeble-minded children." Again, at the Conference on "Education under Healthy Conditions," held at Manchester in 1885, under the presidency of Lord Aberdare, I took occasion to suggest† that in that city the experiment of either a central school, or special school departments, for exceptional children might advantageously be tried. It appears to me that such a school would have a distinct sphere of usefulness, apart alike from the common school and the imbecile institution. In not a few cases, as has been proved in Christiania, the pupils would be so far improved by special instruction as to enable them again to take their places in the ordinary school, whilst in others the natural reluctance of parents to send their children to imbecile institutions would be overcome when it had been demonstrated that even special instruction in auxiliary classes was not in their case sufficient. For my part I think, considering how much depends upon training out of school hours, as well as in school, in effecting the lasting amelioration of weak-minded children, that for many (if not the majority) of the cases, the institution would be more beneficial than the auxiliary school, especially where the home-surroundings are unfavourable. The physical aspects of the

* "Health Exhibition Literature," Vol. xi., p. 560.

† "Proceedings of the Conference on Education under Healthy Conditions, 1885," p. 219. (Manchester, John Heywood.)

subject, moreover, must not be overlooked, and there can be no doubt that many of the ill-results attributed to "overpressure" are, in fact, due to "under-feeding." Still, auxiliary classes might be supplemented by other benevolent agencies for improving the home and supplying extra nutrition (as, indeed, is already done in the form of free breakfasts, halfpenny dinners, &c.). The cost of such classes would no doubt be considerable, for the instruction, to be effectual, must be more or less individualized, and well-trained teachers must be well paid. But surely what a poor country like Norway can do wealthy England can afford. In the long run the result, taking into account the remunerative industry of restored pupils, would probably be on the side of economy. But apart from mere economic considerations, is it not the duty of a professedly Christian nation, even in relation to our educational systems, to "gather up the fragments that remain that nothing be lost?"

Dr. W. W. Ireland has favoured us with the following *Notes from Soethre's Institution for Imbecile Children, near Bergen,* which form a fitting addendum to the foregoing.

No country shows greater readiness to do its best for the primary education of its children than Norway. In 1881 the education of abnormal children, the blind, deaf, and imbecile, was made compulsory. Since then they have been busy in collecting information and erecting buildings suitable for the accommodation of these unfortunate classes. In the neighbourhood of Christiania there are now two institutions for the training of imbeciles, one at Lindern for boys, the other at Thorshang for girls. Both these were commenced in 1878.

These are only known to me by favourable report ; but last summer I had the opportunity of gaining an intimate acquaintance with the Institution for Imbeciles at Ekelund, near Bergen. It was commenced with one pupil in September, 1882. Until the present year it was carried on in hired premises—three separate houses in the suburbs of Bergen ; but last summer the new house was completed.

It is situated about a mile from the Hop Station, and five miles from Bergen. The stranger could never guess to what use was put the comely building of white stone situated on a hill in a picturesque highland country, with a lovely lake in the immediate neighbourhood. The body or front of the building has four storeys, with two wings running at right angles, so as to make three sides of a square. The basement is occupied by the kitchen and workshops. The next storey contains the schools and offices. The third has in front the superintendent's house, the rest of the wings and other storey being occupied by dormitories. The amount already expended in building

is 135,000 kroners, and before it is finished it will probably cost 160,000 kroners—a kroner is equal to 1s. 1⅓d. This includes the cost of cutting roads, making bridges, levelling the ground about, and erecting out-houses, such as stables, hay-lofts, and cow-sheds. The roofs of the ordinary rooms are of wood, with wooden panels on the walls up to the height of five feet. The house is built for 100 pupils. At present there are 42 boys and 24 girls. There are three male and three female teachers, one carpenter, one shoemaker, one basket-maker, one teacher of sewing. There are besides two out-door workers, but owing to the place being newly established there is a good deal of extra out-door work. The domestic establishment is conducted by six nurses and one cook. The money for building has been given by Government as a loan. The interest represents a rent of 6,000 kroners. The board at present charged is about 600 kroners, or £32 6s. 8d., for pupils above fourteen years of age, and 552 kroners (£30 13s. 6d.) for those below fourteen years. Of this sum 360 kroners, or 312 kroners for the lower board, are defrayed from the poor rates and county rates, while the expenses of teaching, amounting to 240 kroners, are defrayed by the Government.

At present there are only three private boarders. Naturally the cost of board will fall as the number of inmates increases. The manufactures are basket-making, shoemaking, and carpentry. Good baskets are made in some variety of shape. The osiers are imported from Germany. The principal wooden articles seemed to be knife-boards, book-cases, stools, chairs, wooden shoes, and salt boxes. Stout shoes and boots like those habitually worn in Norway are made in the shoemaker's shop with no assistance from machinery. It may be mentioned that in Norway the peasants do for themselves a good deal of the work which in our country is now almost always done by special artificers. The Norwegian bonder saws his planks and builds his wooden house; he puts together a good deal of his furniture, and makes and mends his boots. Many of the pupils were clad in rough, homespun cloth, such as is made in the Hebrides.

Mr. Soethre explained to me that he was more anxious to draw out the intelligence and fit the pupils for doing something to earn their bread than to aim at immediate money profit.

On the school accommodation great care was evidently lavished. There were six schoolrooms, three with desks and seats in a horseshoe form. There was a great wealth of apparatus for teaching-illustrations and object-lessons. Four hours were expended in teaching, that is from half-past eight to half-past one; after which there was an interval for dinner and play until three o'clock, and then three hours at the workshops.

Surveying rooms and looking at apparatus are easy. It is more difficult to ascertain what use is made of them. In this I had good opportunities through the hospitality of the superintendent. The pupils were of different ages, from eight or nine to above twenty years. They

belonged generally to the class called imbecile or feeble-minded : that is, there were few whom one would place in the lower grades of idiocy. There was only one child who could not speak. Four spoke a few words, and six could only use short sentences. In the highest arithmetic class nine boys and three girls could do a little division. As imbeciles are generally very deficient in counting, few pupils in a training school in Great Britain ever reach this stage. Most of the children were capable of being taught to read. The subjects of instruction were the Lutheran Catechism, Bible history, reading, writing, drawing, counting, and geography. Epileptics were not received, and there were few paralytics or very feeble children. Indeed, the general tone of health was robust. The children were mostly fair, with the good-humoured, placid look characteristic of the Norwegian. It was easy to see that they were happy, well cared for, and well employed. There were three or four Mongolian idiots ; microcephales do not seem to be common in Norway. I give the measurements (in centimetres) of the three smallest heads in the Institution :—

Olina, a short girl, fourteen years old.	C.
1 Antero-posterior	34
2 Transverse	32
3 Circumference	47
	113
4 From tragus to glabella	13
5 From tragus to occipital protuberance ...	13

Anna, a taller, fair girl, seventeen years old.	
1 Antero-posterior	35
2 Transverse	33
3 Circumference	50
	118
4 From tragus to glabella	14
5 From tragus to occipital protuberance ...	11
Teeth	28

Henrik, a lad of eighteen.	
1 Antero-posterior	31
2 Transverse	36
3 Circumference	50
	117
4 From tragus to glabella	13
5 From tragus to occipital protuberance ...	12
Teeth	29

The children get a good plain diet in sufficient quantity. Milk and

fish, the two great articles of food in Norway, are much used. Green vegetables are not very abundant, but potatoes are commonly used. There have been five deaths since the Institution was commenced. As will be noticed, by the exclusion of epileptics and cases of the lowest forms of idiocy the difficulty of having no resident medical officer is minimized. This could scarcely be felt while the Institution was at Bergen. Jakob Soethre himself is well qualified for his post, both through natural gifts and acquired skill and knowledge. He was for three years a teacher in the Institution for Imbecile Boys at Christiania. He studied anatomy and hygiene in that city, and afterwards by travelling in different countries made himself acquainted with the most approved methods of instruction for abnormal children. Mr. Soethre is also the director of a day-school for feeble-minded children at Bergen, whither he goes three times a week.

The Institutions for Idiots in Britain contain a larger proportion of children afflicted with nervous diseases and constitutional morbid tendencies than the pupils at Ekelund; hence the wisdom of the laws requiring a resident medical officer where there are more than one hundred inmates seems to me evident. In our country the institutions which have no resident medical officers have the highest mortality. At Larbert I had but fifteen deaths in ten years, an average mortality of 1·5 per cent., or 15 in the thousand. I left the place in April, 1881, in good hygienic conditions, with a newly-increased water-supply—a serious want in my time. For that year no increased mortality appeared; but the death-rate of the subsequent years has, as is seen, justified what was pointed out at the time in some medical journals. The deaths were, as stated in the lunacy reports, in 1881, one death to an average number of residents of 124; in 1882, six deaths to average number of 133; in 1883, three deaths to average of 159; in 1884, eight deaths to average of 182; in 1885, ten deaths to 184·5; and in 1886, seventeen deaths to 180 resident. Thus the death-rates from 1881 to 1886 were successively 8 per thousand, then 45, then 18, then 43, then 54, then 94.

At Baldovan since 1881 the deaths have been successively 4, 3, 10, 6, 3, and 4, to an average number of residents of 64, 63·5, 56·5, 51, 49·5, and 49, giving a death-rate of 62, 47, 177, 117, 64, and 81 in the thousand. It was in the course of writing this paper that my inquiries led me to these figures, which no one up to this time seems to have thought of any gravity.

Those who have visited the different institutions for idiots in our island to gain knowledge to be used in Norway have remarked the gaudiness of the furnishings, which they, in some cases, were inclined to contrast with the scantiness and low quality of the teaching staff. But perhaps the outside visitor in his short survey of the establishment might miss something superfluous, rather than notice there was everything necessary in the modest and useful furniture of the Norwegian Institution. Even those especially versed in the subject

might, in Soethre's Institution, learn a good deal about the means and art of teaching in which its great strength lies.

The most striking feature to me was the drill, which was, of course, conducted on Ling's system. I could not have believed from mere report that imbecile boys or girls could have been taught to go through such a long series of different exercises. The great advantage of Ling's system is that all the muscles are called into play in one way or other. For exercising the body and invigorating the health it is thus superior to exercises based upon military drill, which is naturally designed to lead up to fighting purposes. Another advantage is that very few apparatus are required. There is a good manual of gymnastics, with engravings, which is used in the ordinary schools in Sweden and Norway.* As far as I know, Dr. Mathias Roth can claim to be the first, or one of the first, to render into English the rational gymnastic system of Ling. It is scarcely necessary to direct readers to the very instructive report on Swedish Gymnastics, by Miss Ellen White, in the October number of this Journal.

PART II.—REVIEWS.

The Nervous System and the Mind; a Treatise on the Dynamics of the Human Organism. By C. Mercier, M.B. 8vo. London: Macmillan, 1888.

Had Dr. Mercier done no more in this book than recall us to the consideration of the principles that, consciously or unconsciously, underlie all our dealings with the insane, he would have established a claim on our gratitude. It is a peculiar refreshment for us, who are usually occupied with harassing practical details, to turn to speculation of an elevated kind, and dwell for awhile in the calm atmosphere of philosophy. It is, however, unnecessary for us to tell our readers that he has given us much more, and that his book will be studied with at least as much advantage as pleasure.

The introduction gives the key to the whole work; its object being to urge the importance of the study of psychology to alienists. He has laid his finger on the true reason why practical men have undervalued it; it has too often been studied from a standpoint so purely introspective as to offer them no obvious advantage. He goes on to point out with great force that "the first, most important, and most imperative, duty of the student of psychology is to recog-

* Gymnastiska Dagöfningar af C. H. Liedbeck. Stockholm.

nize the impassable gulf, the fathomless abyss, that separates the world of consciousness from the world of material things," so that any attempt to express the one in terms of the other is simply meaningless.

The two first parts of the volume deal with the physical and physiological functions of the nervous system. As they are merely preparatory to the main purpose of the work, we are compelled to pass them over, though there are several points in them on which we should have been glad to dwell. It is right, however, to remark the very clear account of the nervous mechanism of co-ordination and inhibition; and in particular the neatly stated antithesis of the two main groups of co-ordination—successive and simultaneous. The successively co-ordinated movements being worked out in the cerebrum, a high probability is shown for the co-ordination of simultaneous movements in the cerebellum. In this department of his subject, the author starts from Dr. Hughlings Jackson's "bahnbrechend" speculations, but makes an advance in connecting these more explicitly with other departments of neurology.

With the seventh chapter we enter on psychology proper. It should be remarked at once that Dr. Mercier only professes to address himself to those who accept Mr. Herbert Spencer's philosophy. The present writer is unable to do so, though he gladly recognizes the great value of many details in Mr. Spencer's work; his criticisms may, therefore, appear unfounded to those who go with the author in his entire acceptance of the Spencerian philosophy. He divides his subject into Conduct, Thought, and Feeling. With this no one would probably be inclined to quarrel; but he seems to have involved himself in needless difficulties by dealing with them in this order. Since conduct is the adjustment of the individual to his environment, and thought and feeling are necessary elements in such adjustment, it would have been clearer to give an account of them, before describing their interaction with the world outside. In like manner, Thought is defined to be a relation between Feelings, and ought therefore to have been dealt with after these had been enumerated. In his account of conduct he most closely follows Mr. Spencer. The chief point of interest is the account of the different ways by which Intelligence may be manifested in adjusting the individual to his environment. Newton is taken as an example of *novelty* of adjustment; an organ-player of *complexity* in adjustment; a draughtsman, of *precision;* while

practical success in life is shown to be due to another adjustment, the choice of circumstances. The subordinate descriptions of character under this last head are worked out with great acuteness; and we here meet for the first time with a direct reference to insanity. Dr. Mercier points out that disorder of the first three forms of adjustment is never considered insane; but that it is the loss of "common-sense," or shrewdness, which causes the individual to be looked upon as imbecile. Is there not in all this some over-refining? We should have said it was nearer the truth to speak of common-sense or practical shrewdness as embracing all the other varieties of adjustment, of which they are more highly-developed specializations. It then becomes correct to say that we treat a man as insane as soon as his power of adjustment is so far lost as to affect vitally the conservation of the organism. For the sake of completeness it should have been added that insanity may also consist in a want of adjustment to the social organism, as well as to the individual. Thought is treated, in strict uniformity with Mr. Spencer's system, as the relation between Feelings. But a good deal of stress is rightly laid upon the complexity of many cognitions and feelings, each composed of multitudes of simpler feelings and thoughts. To our mind this goes far to invalidate the Spencerian classification altogether; but its practical importance to the alienist is great, as disproving the possibility that delusions can exist alone on the one hand, or on the other, that feeling can be disordered independently of intelligence, though this, as we shall see, may be stated too absolutely. Dr. Mercier's classification of Thoughts differs considerably from Mr. Spencer's, on which it seems to us a decided improvement. It may be briefly stated thus: Every relation between conscious states is either the establishment of a new relation or the revival of an old one. The former case is a process of reasoning, and the results are termed Judgments. In the latter, both terms may be wholly represented, when the result is a Memory; or presented elements are contained in one or both terms, when the result is a Percept. The difference between a mistake and an insane delusion is stated thus: In both there is a want of adjustment between the relation in thought and the relation in the environment; but in the case of insanity the power of readjustment is lost, so that a correct adjustment cannot be arrived at. The importance of this statement cannot be overrated, but mainly, as it seems to the present writer,

because it points to a loss of the power of co-ordination as the cerebral element in such cases. It may be questioned, however, if this is not put too absolutely. The loss of adjusting power may, sometimes at least, depend upon incorrect feelings; it will, of course, be replied that these can only be known as correct or incorrect in virtue of an act of thought. Still there must be an end somewhere, and a point at which the fault would lie with the sensation, and not with any subsequent mental act. In like manner the case of physiological hallucinations ought to have been considered.

The chapters dealing with Feeling constitute the most elaborate part of the work; Dr. Mercier's classification of feelings in particular being the part to which he has devoted most care. He rejects Mr. Spencer's arrangement, mainly on the ground that it is subjective, and does not take sufficient account of external circumstances. His own division is certainly more in accordance with the philosophy of evolution. The chief divisions are as follows:—

Class I.—Those Feelings which affect the conservation of the organism.

Class II.—Those which affect the perpetuation of the race.

Class III.—Those which affect the common welfare.

Class IV.—Those which affect the welfare of others.

Class V.—Those which are neither conservative nor destructive.

Class VI.—Feelings corresponding with relations between interactions.

These are again subdivided over and over again; to what an extent may be imagined when it is mentioned that 32 different feelings of Antagonism alone are enumerated. The arrangement is all the more complicated since it is not serial, but with such varied affinities that (as our author says) it requires three dimensions for its adequate exposition. We are therefore here unable to do it any justice, beyond acknowledging very gladly the great ability and acuteness with which similar feelings are discriminated, which makes this the most interesting part of the book to the ordinary reader. But we much fear that the very complexity and richness in detail of the scheme will prove a bar to its general reception, and even to its being fairly studied in this age of hurry and impatience. We confess that for practical purposes the simpler, and what Dr. Mercier would call the pre-scientific schemes, are far more likely to be really useful; for instance, we agree with Dr. Maudsley in preferring Spinoza's account

of the passions to most modern ones. There are many points on which it would be profitable to dwell, but we are compelled to restrict ourselves to one only—our author's view of the nature of the Will. In this, as in so many other details, he shows himself a more consistent Spencerian than Spencer himself. He considers it to be the feeling that corresponds to the incipient stage of every act, of which the physiological correlative is the passage of the nerve-current from the highest regions to the muscles. This he believes is raised by persons ignorant of physiology into a separate feeling, the antecedent of all action. We will not venture to criticize this theory, for we are expressly warned it is only intended for Spencerians, and we readily admit its superiority to Mr. Spencer's own, and its greater consistency with his psychology. It may, however, be remarked, that Dr. Mercier is not quite consistent himself. Having just told us that the physiological correlate of Will is the passage of the nerve-current, when he has to account for the unique character which he admits Will has psychologically, he states that it corresponds to the activities of all the higher regions, and not of any one region.

The conclusion brings together the three divisions of his subject—Nervous Process, Conduct, and Mind—which he has examined separately. He admits that only certain broad principles can be laid down, and these are such as all physiologists will agree to. No one doubts that the nervous process which underlies feeling is the process by which we act, and which is evoked when we are acted upon; and we suppose few doubt that thought is accompanied by the remaining factor of nervous action, the current in the fibres. This is, however, followed by a rearrangement of the molecules in the ground-substance of the grey matter, whereby subsequent currents pass with greater ease and less conscious effort. The reader will be sorry that Dr. Mercier should have thought it "out of place to deal with morbid processes," when he might have thrown so much light upon them, as the solitary instance he gives is enough to show.

It was due to Dr. Mercier, as well as to the importance of his subject, that we should criticize the most obvious points in his book as far as space would allow. Our chief regret is, that we have been unable to give proofs of the power of analysis which is displayed throughout; but our readers will have studied the book for themselves before this, and recognize its ability. We presume that Dr. Mercier's articles in

this Journal ("The Data of Alienism," &c.) will be expanded and published as a supplementary volume to the one under review. As these papers explicitly applied the doctrines of evolution to the subject of insanity, such a volume is a necessary corollary to the present one, and the more interesting because Mr. Spencer has never attempted to make this application. J. R. G.

Animal Magnetism. By ALFRED BINET, and CHARLES FÉRÉ, Assistant Physician at the Salpêtrière, London. Kegan Paul, Trench, and Co., 1887. The International Scientific Series.

We have already commented favourably upon this work and now proceed to give an analysis of its contents. After giving a useful sketch of so-called Animal Magnetism from its early history to the present day, when the distinguished physician of the Salpêtrière has done so much to work out the subject clinically and on the lines of the famous Manchester surgeon, who, unfortunately, did not live to see the recognition of his doctrines by the medical profession, the authors of the work before us describe the modes of producing hypnosis and the symptoms of its various stages. The experience of Heidenhain, Grützner, and Berger in producing *unilateral hypnosis,* displayed by excessive muscular excitability, by means of slight and prolonged friction on one side of the head, is referred to. Pitres has maintained that there are in some subjects hypnogenic zones, and that the irritation of these localities may cause hypnosis. This observer may have tested a sufficient number of subjects to avoid fallacies, but it requires an immense amount of care to escape that source of fallacy which arises from a chance association of ideas and expectancy with special localities. The same remark applies to the statements by our authors that sleep can be induced by opposition of a magnet to a hypnogenic zone. Some suspicion of the presence of the above source of error is aroused by the fact that "each subject may display different hypnotic zones, not only as to their site, but as to their action." MM. Binet and Féré assert that the fact of the influence of the magnet on hypnosis, first pointed out by Landouzy in 1879, and verified by Chambard, has been confirmed by themselves. In opposition to the opinion that imagination is indis-

pensable to the success of hypnotism, the authors hold that sleep can be induced not only without the subject's imaginations, but against his will and without his knowledge. As a proof that all sensorial excitement, which causes sleep, does so by exhaustion of cerebral power, the exaggeration of motor-phenomena which follows, is adduced. If a dynamograph is placed in the hand of the subject, without exerting pressure upon it, and he is then hypnotized, the fingers press strongly on the instrument and, in fact, many other muscles are affected. Suggestion alone, however, produces sleep, and how, it is asked, can exhaustion be the cause? The answer is given that this suggestion of sleep takes effect by inducing the recollection of certain impressions of fatigue which involved exhaustion in the same way as a physical excitement (p. 97). This is analogous to the interesting fact observed by Ballet that the suggestion of an electric lamp made to a subject, either in her waking state or in a previous sleep, produced a cataleptic attack when she was told on becoming wide awake to look in the corner where the imaginary lamp was placed. Here the suggestion of the electric ray produced the same effect as it had already done in reality when directed to her face. The bearing of this upon the influence of insane hallucinations is obvious. The several means of arousing patients from the induced sleep are enumerated. Such are, breathing lightly on the eyes or forehead; the wind from a pair of bellows; sprinkling water on the face; raising the patient and breathing strongly on the cornea; and, with some hysterical patients, pressure over the ovaries. It is alleged that if only one half of the forehead is breathed upon, the other half being screened, half of the body only is awakened. Again, the subject may be awakened by being repeatedly ordered to awake, just as he is sent to sleep at command. Tracings are reproduced from Charcot, showing the oscillations of the arm when extended, as also of the respiration, in (1) hypnotic catalepsy, and (2) a man who attempted to maintain the cataleptic attitude. The difference is most marked. The cataleptic limb of the former does not tremble but drops slowly and gently, while the respiration is marked by calm and normal action throughout. The arm of the man who is not hypnotized soon shows fatigue, his hand trembles and presents an absolute contrast in the tracing, while the breathing soon becomes hurried and irregular. Efforts to conceal fatigue cause abrupt oscillations. There

is a false catalepsy when the limb of a patient who is in a state of somnambulism is held up for a few moments and remains in that position. Here the muscles have been excited by the process, and are "contractured" but not cataleptic. Relaxation is easily brought about by friction. The fact that resistance is offered to an attempt to move the limb is opposed to its being true catalepsy.

Under the head "Disturbance of the Breathing and of the Circulation" the authors cite Tamburini and Seppili's tracings when a subject is hypnotized. They have been found to agree exactly with those made at the Salpêtrière.

During the state of lethargy the respiratory curve is fairly regular; its movements are usually slow and deep; in short, the respiration does not essentially differ from what it is in the normal state. The same may be said of the state of somnambulism. The only characteristic peculiar to hypnotism appears to be a certain disconnection, or even a true antagonism, between the thoracic and abdominal respiration. In catalepsy, however, there is considerable modification in the mode of breathing. The movements are infrequent, superficial, and extremely slow, and separated by a longer or shorter interval of complete immobility. In the tracing the widely different curves in catalepsy and lethargy may be compared. It has been observed that the application of a magnet to the subject's epigastrium produced profound modification on the respiratory curve of lethargy. In catalepsy, on the contrary, the curve was scarcely affected by a magnet. The subject is placed in the state of lethargy; after a few regular respirations the approach of the magnet induces a strong movement of expiration, then of inspiration; catalepsy is then produced by opening the subject's eyes, and the shallow breathing peculiar to this state is at once displayed. Soon afterwards the eyes are again closed, and lethargy is produced; another deep expiration, followed by a deep inspiration, takes place owing to the unchanged position of the magnet; and if this is removed the curve of lethargy reverts to its normal type.

The researches made by Tamburini and Seppili on the circulation are no less interesting. By means of Mosso's plethysmograph and the air-sphygmograph, they ascertained that in the state of lethargy the graphic tracing shows a constant tendency to rise, and that when catalepsy is produced it again descends gradually. In other words, lethargy increases the volume of the fore-arm, that is, causes the vessels to dilate; catalepsy, on the other hand, diminishes the volume of the fore-arm, or causes the vessels to contract. Tamburini and Seppili's experiments were repeated by one of the present writers, and although the results obtained were not absolutely corroborative, yet they showed that modifications took place in the peripheral

circulation, which appeared to be wholly independent of the subject's will (p. 133).

The following signs are, therefore, guarantees against simulation:—The precise localization of the lethargic contraction in the muscles supplied by the branches of the nerve which has been excited; the maintenance of the cataleptic attitude without trembling or fatigue; the effects of a continuous traction on the contractures of lethargy and somnambulism; the limitation of each of these phenomena to one half of the body; and, lastly, their mode of appearance and disappearance.

However well satisfied the experimenter may be with the *bona-fides* of the subject, it is of the greatest importance that he should resort to these objective tests, not primarily for his own satisfaction, but for that of others who may reasonably decline to take on trust the good faith of the person alleged to be hypnotized. An illustration of double consciousness, as also of the acuteness of memory, is given on the authority of Richet:—"After hypnotizing V., I recited some verses to her, and then awoke her. She was unable to remember them. I hypnotized her again and she remembered the lines perfectly; when I awoke her she had again forgotten them" (p. 186).

As in spontaneous somnambulism, so in hypnosis, intellectual feats may be accomplished, of which the subject is incapable in his ordinary waking state. Thus the authors have seen hypnotized persons who could read printing in an inverted position more rapidly than when they were awake, and who could even supply the omitted letters of a double acrostic.

MM. Binet and Féré do not consider that the mental state which characterizes hypnosis can be termed with accuracy "automatism."

The *rapport* which may exist between the experimenter and the subject warrants the adoption of the term "elective somnambulism," but it is, in fact, only the exaggeration of a normal fact, the intensification of the sympathy which is so often observed between two persons.

Suggestion has, no doubt, much to do with the production of elective sensibility. Certain it is that the contractures, induced through hypnotism, can be removed by the experimenter when a third person totally fails, although care may be taken to prevent the fact being known. The remark-

able acuteness of the sense of touch allows of the recognition of the difference between the operator and a stranger. The authors have observed that when two experimenters "divide the subject's sympathy in half, the hallucination by the one *en rapport* with the right side only affects the right eye; it is unilateral, and the subject sees nothing with his left eye" (p. 151).

It may be observed that the medical observers at Nancy and those in Paris differ somewhat in their results. The former hold the view that suggestion explains everything in hypnotism. The authors consider that these differences are not due to the subject, but to the experimenters. "They come from the mode of culture, and still more from process of study. . . . If suggestion is employed as the sole process, only the effects of suggestion will be obtained, and thus it was at Nancy. But if we apply ourselves to the study of physical characteristics, they may sometimes be observed at the outset, and they may also be gradually developed in some other subject" (p. 170). The *rôle* of suggestions is by no means neglected in this work, and the chapter on this aspect of hypnotism is very full. The ease with which a subject can simulate a hallucination is pointed out.

We pass on to the psychical phenomena induced by suggestion. It is pointed out that one kind of suggestion produces inactive or impulsive phenomena, (*e.g.*, pain, hallucination, an act); the other some phenomenon of paralysis (*e.g.*, flaccidity of a limb, loss of memory, anæsthesia of the senses). "The one undoes what is done by the other." First, there is an impression made on the subject. Thus a verbal suggestion arouses a second impression in the brain, as, for example, a suggested image or hallucination. How does the first impression excite the second, which is from within? It is due to the association of ideas. An association in the mind already exists, and the suggestion of the experimenter sets it in action. The example given is that of a subject commanded to look at a bird on her apron. It is not only seen, but even felt by her; nay, more, it may seem to her to sing. This is nothing more than an illustration of the law that when there has been a frequent conjunction of two images, the presentation of one calls up the other more or less vividly. In some cases, no doubt, there is an assimilation of the suggested idea. Thus, when the subject is told to commit a theft, after he awakes, there is in the execution of the act something more than an image

associated with an act. It is very difficult to explain the *modus operandi* of the familiar experiment of telling the hypnotized person that when he awakes he will be unable to perceive or hear. Our authors confess their inability to do more than to accept the fact. All that can be said is that such a suggestion does establish in the brain an anæsthesia corresponding to the objects selected. Association of ideas fails to explain the problem. The same remark applies to motor paralysis by suggestion. It is little more than a statement of the fact in physiological language to say that the operator causes a mental impression which has an inhibitory effect on one of the sensorial or motor functions. To those unacquainted with hypnotism it is hardly credible that a hallucination may remain in force after the subject is awake. He does not recollect how he came by it. It seems to him to be spontaneous. One might have expected that he would have remembered the suggestion having been made. It is at this point that the bearing of hypnotism upon insane hallucinations is intensely interesting.

(*To be continued.*)

The Life of Percy Bysshe Shelley. By Edward Dowden, LL.D. Two Vols. Kegan Paul, Trench, and Co., London. 1887.

(*Continued from Vol. xxxiii., p.* 310.)

As to Shelley's relations with Harriet at this period we are told that they presented at times a "friendly appearance," although they "could hardly be sound or happy at heart." In his dire need of cash he was not above applying to Harriet, who managed to spare him twenty pounds out of her scant allowance. We cannot be surprised that "the reproaches of an injured wife" accompanied the gift. In the diary kept by Jane Clairmont, her behaviour at this time is designated as "strange." Dr. Dowden records the fact, without any sympathetic comment of his own, that "Harriet took it as cruel that one who had loved long and tenderly should leave her for another at a time when she looked forward to the birth of a second child" (p. 464). Mary Godwin's journal, early in October, contains the entry, "Letter from Harriet; very civil." But by January, 1815, Harriet, finding it impossible to make ends meet, sent on some

creditors to Shelley, upon which Mary indignantly enters in her diary: "Harriet sends her creditors here; nasty woman. Now we change our lodgings." We have passed over the birth of a boy, Charles Bysshe Shelley, in November, 1814. In Mary's journal we have sundry unfeeling references to the event. About a fortnight before the child's birth Hogg appears on the scene. Shelley records —

In the evening Hogg calls; perhaps he still may be my friend, in spite of the radical differences of sympathy between us. He was pleased with Mary; this was the test by which I had previously determined to judge his character. We converse on many interesting subjects, and Mary's illness disappears for a time (p. 467).

Shelley's biographer writes —

So the old friendship with Hogg renewed itself, with jest and anecdote and argument, as in the old days of University College (Oxford); and New Year's Day brought a note and present from the friendly cynic to Mary; and by-and-bye Hogg would accompany Jane Clairmont and Mary to the bonnet shop; or indoors would read "Rokeby" aloud for them; or would listen while Mary, now [like Harriet before her] a student of Latin, construed her lesson from Ovid (p. 469).

It is important to record that Shelley had a dread of being alone, and was accompanied in his walks (which at this time were frequently in the direction of the money lenders) by Jane Clairmont. She has left on record that he laboured under a delusion that he would be suddenly assaulted by Leeson, who was the imaginary assassin in the singular nocturnal scene when he resided in Wales. She states that this apprehension did not leave him till the end of 1818 or the beginning of 1819.

We may pass lightly by the record of Shelley's poverty while in London, his flight from his creditors, and the desperate devices to which he was reduced, while Mary succeeds from time to time in meeting him in spite of bailiff and other "suspicious men," Shelley meantime pawning or selling some of his valuables. In a note to Mary, Shelley writes —

My imagination is confounded by the uniform prospect of the perfidy, wickedness, and hard-heartedness of mankind. Mary most amply redeems their blackest crimes! But I confess to you that I have been shocked and staggered by Godwin's cold injustice. The places where I have seen that man's fine countenance, bring bitterness home to my heart to think of his cutting cruelty. I care not for the

Hookhams; I'll tear their hearts out by the roots with irony and sarcasm, if I find that they have dared to lift a thought against me (Vol. I., p. 492).

In another letter to Mary he writes —

I have written an extremely urgent letter to Harriet to induce her to send money. . . . I shall see you to-night, my beloved Mary, fear not. . . . I am desperate and resolute in your absence. . . . If you see Hookham do not insult him openly. I have still hopes. I will make this remorseless villain loath his own flesh in good time; he shall be cut down in his season; his pride shall be trampled into atoms; I will wither up his selfish soul by piecemeal (p. 494).

Two or three days after he writes —

How hard and stubborn must be the spirit that does not confess you to be the subtlest and most exquisitely fashioned intelligence; that among women there is no equal mind to yours; and I possess this treasure! How beyond all estimate is my felicity! (p. 496).

Early in 1815 Shelley's prospects brighten. His grandfather died, his father became a baronet, and Shelley the heir to large property.

Business negotiations occupied many months, and it is important as an indication of Shelley's possessing a sufficient amount of practical sense to attend to his affairs that

In dealing with his father, with his legal advisers, and with Godwin, who, through his own necessitous position, was interested in Shelley's chances of being able to afford him relief, he spoke and wrote like a clear-sighted man of business, and rarely, if at all, assigned philosophic-romantic reasons as those which determined his actions (p. 509).

Shelley comes now into possession of considerable wealth, having £1,000 a year, and his father advancing money towards the payment of his debts. He sent £200 to pay his wife's debts, and requested Sir Timothy to direct the bankers to pay her a quarterly payment of £50. The fleeting impulses to which Shelley's nature was subject included one little to be looked for from even his versatile genius. Walking with Peacock one day he admired a vicarage house and garden which they happened to pass. He suddenly exclaimed to his companion —

I feel strongly inclined to enter the Church. . . . Of the moral doctrines of Christianity I am a more decided disciple than many of its

more ostentatious professors. And consider for a moment how much good a good clergyman may do. . . . It is an admirable institution that admits the possibility of diffusing such men over the surface of the land (p. 513).

Shelley about this time was out of health, and suffered from acute spasms, but of what nature is not clear. In the early part of the year (February 22) a girl was born, but in about a fortnight Mary found it dead by her side. It is interesting to note that in March Godwin passed Shelley and his daughter in the street, and that he remarked, what a pity it was that Shelley, who was beautiful, should be so wicked.

A reference may here be made to the indications of a considerable change in Shelley's views. His reflections on Life and on Love are pointed out by Dr. Dowden as showing how far he had moved from the position which he once occupied as a disciple of the materialistic philosophers of the French "Illumination" (p. 534). Shelley had now regained his health, and was living on the borders of Windsor Park, often visited by his friends Peacock and Hogg. He was able to write to the latter:—"My habitual dejection and irritability have almost deserted me, and I can devote six hours of the day to study without difficulty" (p. 533). In January, 1816, a child was born, who lived but a few years, and to whose memory some beautiful lines were addressed by the poet. Shelley's fame as a poet was about to receive a solid basis in his poem "Alastor." Much time was occupied in business transactions with Godwin, who remained unable to forgive him the wrong he had done to him. Dr. Dowden observes—"To Shelley it seemed strange that Godwin, whose earlier views on marriage had helped to determine his own, should treat him as if he were a common seducer" (p. 538).* It will, however, be urged by some in Godwin's favour that, although he had protested against the necessity of the legal forms of marriage, he had not written anything in support of elopements and wife-desertion. He had not, so far as we are aware, advocated the seduction of a girl in her teens, or the cruel deception of a father by his daughter, by one to whom he had extended hospitality, and on whose honour he had fully relied.

From our standpoint, it is important to accentuate a former observation that the business letters to Godwin are very clearly written, and are creditable to Shelley. In these,

* Letter from Godwin to Shelley, March 7, 1816.

however, he speaks of hiding himself and Mary from "that contempt which we so unjustly endure," and of the wrongs he suffered at the hands of the indignant Godwin (p. 546).*

Shelley now leaves England for the Continent. The expectations of wealth under his grandfather's will were deferred in consequence of legal complications. Economy rendered it desirable to live more cheaply than was possible in his present residence. This, rather than "the spirit of restlessness" to which Peacock attributes his journey, occasioned this movement. At the same time his friend knew enough of him to be well aware that restlessness was one of the marked characteristics of his singularly endowed mind.

Before the departure, an incident occurred immediately bearing upon the psychology of Shelley. Peacock is the narrator. It was averred by the poet that Williams of Tremadoc had informed him of a plot which his father and uncle had concocted to carry him off and incarcerate him. With his informant he had walked as far as Egham, and the hat which he had worn was still in his hand. It, however, was not his hat at all, but that of Peacock, who had so much larger a cerebral development that when Shelley put the hat on, it covered his head and face. To the sceptical Peacock Shelley offered to walk with him next day to see Williams. When, however, they had proceeded some distance, he excused himself from the interview by saying that he did not think that they would find Williams at the place to which they were going, an opinion which his friend shared, being convinced that the whole story was a delusion. Shelley, some days after, said that he had received a letter from Williams, and an enclosure of a diamond necklace in order to prove his identity. Shelley said he could not show the letter, and when Peacock observed that the production of only the necklace would prove nothing, Shelley responded, "Then I will not show it to you. If you will not believe me, I must submit to your incredulity." Peacock never heard Williams men-

* Under date March 6, 1816, Shelley wrote to Godwin, "My astonishment, and I will confess when I have been treated with most harshness and cruelty by you, my indignation has been extreme, that, knowing as you do my nature, any considerations should have prevailed on you to have been thus harsh and cruel. I lamented also over my ruined hopes of all that your genius once taught me to expect from your virtue. . . . Do not talk of *forgiveness* again to me, for my blood boils in my veins, and my gall rises against all that bears the human form, when I think of what I, their benefactor and ardent lover, have endured of enmity and contempt from you and from all mankind" (i., 551).

tioned again. It is proper to state that Shelley's biographer considers it quite possible that the story was true, and suggests that a necklace of Harriet's, which had been left with Williams as a security for the repayment of a debt, had now been restored. Not that Dr. Dowden calls in question the poet's liability to delusion. "That Shelley, under peculiar excitement, was subject to strange delusions or misconceptions of fact, cannot be doubted by any unprejudiced investigator of his life" (Vol. ii., p. 3). One who had known Shelley as a boy thus wrote in an article entitled "The Insanity of Men of Genius," in "The Journal of Psychological Medicine," Vol. ii., 1849, p. 272 —

The mind of Shelley (whom Locke would have at once termed a madman, on his axiom that insanity is excess of morbid imagination) was constantly prone to illusions of deep and painful sentiment—demonomania; but sometimes, perhaps from the influence of surrounding circumstances, he became a cheromaniac. Percy Bysshe, with whom we wandered in our childhood, when he was a young Etonian, was a proselyte to spectral realism, especially when excited by visionary studies. We will glance, as an instance, at one of his day dreams, recorded by his friend Williams, when they were in the isolated paradise of St. Arengo. One evening after tea, as they were wandering in the moonshine, he suddenly grasped Williams' arm, and exclaimed, "There it is again—there;" and closer questioned he declared he saw his lately deceased child, naked, arising from the sea, and then clap its little hands as if in an ecstasy of joy, and looking on him with the smiling countenance of a cherub.*

Shelley now goes with Mary and Jane Clairmont ("Claire") on to the Continent. Godwin disapproved of his flight when he heard of it. Shelley thought this necessary in consequence of great pecuniary difficulties, and he gave out that he had gone for a few weeks into the country. Shelley and Byron now met in Geneva. The latter was to Shelley "an exceedingly interesting person," but he regretted that he was "a slave to the vilest and most vulgar prejudices, and as mad as the wind" (Vol. ii., p. 12.)

One evening Byron repeated some lines from "Christabel" (then just published), containing a weird description of the witch, "Hideous, deformed, and pale of hue." Polidori, Lord Byron's young doctor, in his reminiscences of the scene, wrote—"Shelley suddenly shrieking, and putting his hands to his head, ran out of the room with a candle;" whereupon the doctor threw water on his face and gave him ether. At

* This article is anonymous.

last the horror passed away, and each agreed to write a ghost story. A passage in Shelley's journal, August, 1816, indicates his belief in supernatural visitations—

> I do not think, he writes, that all the persons who profess to discredit these visitations really discredit them, or if they do in the daylight, are not admonished by the approach of loneliness and midnight to think more respectfully of the world of shadows (Vol. ii., p. 38).

He returned to England in September. Byron's intrigue with Claire is only important in the present study in bringing out Shelley's mental attitude after he discovered it. "The moral indignation which Byron's act might justly arouse seems to have been felt by neither Shelley nor Mary" (p. 45). This moral apathy must be attributed to mental defect and the obliquity which results from disease, or to the views he held on the moral obligations between man and woman in society, which Dr. Dowden represents as "radically unsound," but then the views themselves may have been the outcome of a defective moral nature.

Shelley's nerves were much shaken in the autumn by the suicide of Fanny Godwin, whose letters on various occasions present her in a very favourable light. She had suffered long from mental depression. Her mother, Mary Wollstonecraft, had attempted self-destruction in the Thames, and had been with difficulty rescued, many years before. Dyspeptic, Shelley was noting carefully the amount of food which he consumed daily, the record for the first day showing a total of only twenty-two ounces. But he read Locke and other books, and was busy while residing at Bath in correcting the proofs of "Childe Harold," entrusted to him by Byron. Poor Claire "passed wretched hours brooding over all that could afflict her, and often wishing herself in possession of that everlasting repose to which Fanny had attained" (p. 59).

Shelley's one consolation at this time was a favourable review from the pen of Leigh Hunt, who wrote announcing him to the public as "a very striking and original thinker. His name is Percy Bysshe Shelley, and he is the author of a poetical work entitled 'Alastor; or, the Spirit of Solitude.'"

We now come to the broken-hearted Harriet's death.

It was in the middle of December that a letter came from Hookham to Shelley at Bath, which conveyed the intelligence of the melancholy end of a life saddened by his fascination for Mary Godwin, and the consequent unhappy sepa-

ration of Shelley from his wife. It is stated that she lived under the protection of her father, Mr. Westbrook, up to a short period before the final catastrophe, when she resided at Brompton. She did not return home on the night of Nov. 9th, 1816. Four weeks afterwards, just when Shelley was paying a visit to Leigh Hunt, her corpse was discovered in the Serpentine. And so ended one of the saddest chapters of human misery. We fail to find any trustworthy evidence in the volumes of Dr. Dowden of Harriet's conjugal infidelity, and we cannot reconcile the author's statement in recording her death (Vol. ii., p. 65) with the tribute paid to the memory of Harriet by Peacock, not to mention other testimony in the first volume.

In any case the truth of what Dr. Dowden says must be sorrowfully admitted. "By Shelley's teaching he had led her to think lightly of the established rule and order of society." If, as a disciple of Godwin, he did so in a certain sense conscientiously,

> His example had not been an example of the patient endurance and self-denial which when old ties are broken should be practised before the formation of new ties. Had such self-denying fortitude been his, not only would his life have been saved from much misrepresentation and some pain, not only would he have left a nobler precedent for other lives entangled in like difficulties with his own, but a strenuous virtue might have passed from his life into his art (heart ?), which would have strengthened its nerve and fibre and enriched and sobered its enthusiasm (Vol. ii., p. 66).

Hogg says that Harriet Shelley had discussed the question of self-destruction early in their acquaintance.

> The good Harriet asked me "What do you think of suicide ?" She often discoursed of her purpose of killing herself some day or other, and at great length, in a calm and resolute manner. . . . At a dinner party (in 1813) I have heard her describe her feelings, opinions, and intentions with respect to suicide with prolix earnestness, and she looked so calm, so tranquil, so blooming, and so handsome that the astonished guests smiled (Vol. ii., p. 66).

In a letter to Shelley announcing the verdict of the jury, "Found drowned," Hookham writes —

> This shocking communication must stand single and alone in the letter I now address you : I have no inclination to fill it with subjects comparatively trifling : you will judge of my feelings, and excuse the brevity of this communication (Vol. ii., p. 68.)

Shelley having at once proceeded to London, to claim his children, wrote to Mary that Leigh Hunt's delicate attention and his kind speeches of *her* had sustained him against the weight of the horror of the event. "It is through you that I can entertain without despair the recollection of the horrors of unutterable villany that led to this dark, dreadful death." Shelley here refers to the conduct of the "detestable Westbrooks" (ii., 69). He adds that he is well in health, though somewhat faint and agitated. There is no trace of any self-condemnation in the letter; quite the contrary. "Everyone does me full justice; bears testimony to the upright spirit and liberality of my conduct to her." His affection for Mary dominates every other consideration —

> Do you, dearest and best, seek happiness—where it ought to reside—in your own pure and perfect bosom, in the thoughts of how dear and how good you are to me, how wise and how extensively beneficial you are perhaps now destined to become (Vol. ii., p. 69).

According to Dr. Dowden, Shelley declared that of these two painful suicides, that of Fanny Godwin brought with it far the crueller anguish (Vol. ii., p. 71).

It was now decided that Shelley should be legally married to Mary Godwin. It was her strong wish, partly because the performance of the ceremony would reconcile her father, who was importunate. To London Shelley and Mary went; on Dec. 27th, the former meeting Godwin after their long alienation. Three days after they were married at St. Mildred's Church, Mr. and Mrs. Godwin being present.

Thus ended the year which had seen fresh troubles for Shelley in regard to his expectations of immediate wealth, his recognition as a poet, his personal acquaintance with Byron, the suicide of his wife, that of Fanny Godwin, the relations between Claire Clairmont and Byron, ending in the former being in great misery and thrown upon Shelley for support; the marriage of Shelley and Mary, and the reconciliation of Godwin.

It is no part of our task to consider the proceedings in Chancery adopted by Shelley to obtain possession of those from whom he had necessarily separated in separating from his wife. Only a very few facts need be stated as bearing indirectly upon the general conduct of Shelley which may serve to help us in our estimate of his mental qualities. Harriet's father, Mr. Westbrook, and John Westbrook filed

a Bill of Complaint to the Lord Chancellor, in which they state that in consequence of Shelley having deserted his wife to cohabit unlawfully with Mary Godwin, his children have remained in the custody and under the protection of Mr. Westbrook and his daughter Elizabeth. This daughter produced a letter from Shelley to herself since her sister Harriet's suicide, in which he spoke of Mary Godwin as the lady whose union with him she—Eliza Westbrook—" might excusably regard as the cause of her sister's ruin." Unfortunately, among the reasons assigned for the refusal to accede to Shelley's wish to recover his children, the charge of atheism was brought against Shelley in support of the Bill of Complaint. Shelley had been too much in debt to allow of his taking charge of his children, but he stated in his answer that it was his wish and intention to have them under his own care and provide for their education as soon as they should be of proper age, or in the event of his wife's death. He denied that his relations with Mary Godwin were unlawful, she being at the present time his lawful wife; in short, he insisted that, being their father, he was also their natural guardian. It is interesting to remember that Sir Samuel Romilly, a man who would be claimed by the most advanced school of religious thought, was counsel for the Westbrooks. As to Lord Eldon, the High Chancellor, Dr. Dowden says, no doubt with truth, that " before a more cautious, deliberate, and painstaking judge, the case of Shelley's children could not have come " (Vol. ii., p. 83). It seems that in the course of the trial the argument passed to some extent from the question of atheism to Shelley's opinions on marriage, and his conduct in relation to his wife, which those opinions did not condemn. His own statement prepared for the Court appears to have been connected and, in its way, able. Indeed, one is struck in reading Shelley's letters and prose writings with his power of composition and his felicity of expression. His style is not one calculated to suggest mental aberration, and in the letters written to Godwin before their reconciliation there is marked self-possession and control. It is only when he speaks of himself as persecuted by everyone, and especially by those who knew him best, or when he regards himself as the apostle of every virtue while his action in relation to Harriet, at the same moment, was justly regarded as heartless, that we are reminded of men of insane temperament or unbalanced minds. We are assured by Dr. Dowden that " it was not because

Shelley held atheistical opinions" that Lord Eldon decided as he did. The Chancellor stated in his judgment that

> Not only Shelley's principles were unmistakable, but that his conduct, which I cannot but consider as highly immoral, has been established in proof and established as the effect of those principles; conduct, nevertheless, which he represents to himself and others, not as conduct to be considered as immoral, but to be recommended and observed in practice and as worthy of approbation (Vol. ii., p. 90).

Lord Eldon did not think himself "justified in delivering over the children for their education exclusively to what is called the care to which Mr. Shelley wishes it to be entrusted." On the point whether the children should remain in a clergyman's family at Warwick or be placed under the care of nominees of Shelley, it was ultimately decided that the latter course should be pursued, and the children were placed with Dr. and Mrs. Hume, of Brent End Lodge, Hanwell, Shelley being allowed to visit them at stated periods. It must be admitted that, from the legal standpoint, "the decision," as Dr. Dowden observes, "was not unjust." That Shelley himself should characterize it as the height of injustice and cruelty was but a matter of course; and yet there seems a sort of inconsistency between the strong expressions of horror at the course pursued by the law in having his children comfortably placed and properly cared for and educated, and his own recent neglect of the duties devolving on a father to his children when, magnetized by the charms of Godwin's daughter, he separated from his wife. Still more reprehensible was this neglect if Harriet's own character and conduct were likely to be prejudicial to them. From the psychological point of view, the whole difficulty and apparent hardship which arose in regard to the custody of Shelley's infants originated in the morbid and emotional impulses by which he was swayed. At what point an unhealthy speculativeness or an undue and altogether disproportionate regard for the questions arising out of the relations of the sexes may be regarded as evidence of an insane temperament, must be a problem difficult of solution; but certain it is that these are subjects the consideration of which has an intense and overwhelming charm for certain minds morbidly constituted. It is very striking to observe with what far-seeing insight Hazlitt put his finger upon the weak spot in Shelley's character. To him, Dr. Dowden states, Shelley's physical characteristics "were symbols of an unwholesome craving

after unnatural excitement, a morbid tendency towards interdicted topics, an unwise quest after the hidden secrets of human destiny" (Vol. ii., p. 100).

Thornton Hunt thus describes one of the singular attacks to which Shelley was subject :—

> It was soon after breakfast, and Shelley sat reading, when he suddenly threw up his book and hands, and fell back, the chair sliding sharply from under him, and he poured forth shrieks, loud and continuous, stamping his feet madly on the ground. My father rushed to him, and while the women looked out for the usual remedies of cold water and hand-rubbing, applied a strong pressure to his side (the seat of Shelley's pain), kneading it with his hands, and the patient seemed to be gradually relieved by that process (ii., 105).

At other times shades of despondency came over him. Thus, when engaging in his favourite amusement of sailing small paper boats in a pond, "How much I should like," he one day said, "that we could get into one of these boats and be shipwrecked; it would be a death more to be desired than any other." Singular that his half-jocose and half-serious wish should be fulfilled. Some of Shelley's impulses were of a distinctly humanitarian kind. When a poor woman sought in vain for shelter one night when the snow lay on the ground, Shelley, who met her, made every effort to find her a lodging ; and, failing this, she was at last housed and fed by Shelley and Leigh Hunt, while next day the poor woman and her son, who was with her, were sent to Hendon. Acts like these, although they are consistent with selfishness in other forms, should not be forgotten in estimating Shelley's disposition. Shelley now lived at Great Marlow, and appeared likely to settle down to a quieter life than he had hitherto led. Godwin, now that his daughter was placed in a legal position, was very friendly with Shelley, and became a guest at his house for a short time. Shelley was then, as he had almost always been, a vegetarian in diet and a water-drinker. Fortunately, among the faults committed by Shelley, that of intemperance cannot be laid to his charge. He rose early and took a walk, or was engaged in reading before breakfast; in the forenoon he studied and composed. With his book he would then go out again, his head sometimes uncovered and exposed to a hot sun, or row on the river; or at other times go into the woods and remain in solitude for hours together. An eye-witness has described him returning with hurried steps and "rather fantastically

arrayed; on his head would be a wreath of what in Marlow we call 'old man's beard,' and wild flowers intermixed. At these times he seemed quite absorbed, and he dashed along regardless of all he met or passed." (Vol. ii., p. 120). No doubt he was regarded by those in the neighbourhood as very eccentric, but he was kind to the poor, and supplied them with blankets during the cold weather. Shelley read much and variously; it is said that the Book of Job had a special attraction for him. At this period he composed the stinging lines on Lord Eldon, commencing with—

> I cursed thee by a parent's outraged love,
> By hopes long cherished and too lately lost;
> By gentle feelings thou could'st never prove,
> By griefs which thy stern nature never crossed.

We now pass over much of the life Shelley led at Marlow and follow him to Italy. His health had been seriously indisposed. He was by no means free from anxiety in regard to money matters, and he was frequently occupied in trying to help his father-in-law in the payment of his debts. There was again a ripple on the stream, and Godwin sometimes writes with soreness, as when he says:—

> I am ashamed of the tone I have taken in all our late conversations. I have played the part of a supplicant and deserted that of a philosopher. It was not thus I talked of you when I first knew you. I will talk so no more. I will talk principles. I would enlighten your understanding if I could; but I would not, if I could, carry things by importunity. I have nothing to say to you of a passionate nature; least of all do I wish to move your feelings; less than the least to wound you (Vol. ii., p. 180).

Shelley's reply does not appear. In March, 1818, Shelley, Mary, and Miss Clairmont again united their forces in Continental travel. Shelley's health improved.

When at Naples the poet was, however, much depressed in mind. Mrs. Shelley writes—

> Though he preserved the appearance of cheerfulness, and often greatly enjoyed our wanderings in the environs of Naples and our excursions on its sunny sea, yet many hours were passed when his thoughts, shadowed by illness, were gloomy; and then he escaped to solitude, and in verses which he hid from fear of wounding me, poured forth morbid, but too natural bursts of discontent and sadness (Vol ii., p. 253).

She speaks of that spasmodic pain to which he was a martyr.

At Rome his sympathies were excited by seeing criminals in chains working in the square of St. Peter's guarded by armed soldiers. The contrast this scene presented to the surrounding grandeur produced in his being "a conflict of sensations allied to madness." He failed to admire the works of Michael Angelo. More than these he enjoyed the fountains of Rome and the statues of Castor and Pollox. Of the Coliseum he has left a beautiful description on record which illustrates his happy choice of words and rich prose composition. If it betrays defects, it is certainly not mental weakness, but that unbalanced estimate of life and of mankind which one cannot but note as so striking a feature of Shelley's mental endowment. Dr. Dowden has some admirable and discriminative remarks upon the "Prometheus Unbound" which are quite germane to this aspect of Shelley's mind. He says that the poet's

> Ideas are abstractions made from a one-sided and imperfect view of facts. No dream or prophecy of the future of the human race can be of authentic value which ignores the true conditions of human existence. Inhumanity is no chained Titan of indomitable virtue. It is a weak and trembling thing, which yet, through error and weakness, traversed or overcome, may at last grow strong. To represent evil as external —the tyranny of a malignant God or Fortune, or as an intellectual error—is to falsify the true conception of human progress. . . . Shelley, now as always, wrote as the disciple of William Godwin (Vol. ii., p. 264).

Shelley's health, very far from strong, had a severe strain put upon it by the death of his little boy William, to whom he was intensely attached, and on whose death he wrote some beautiful unfinished lines, in which he delighted himself with the thought that the spirit of the gentle child still lingered among the living leaves and wild ruins around the tombs of the English Cemetery near the Porta San Paolo. The little Clara had already passed away in her infancy. Shelley had occasion to be depressed, not only from the loss of his children, but from the sorrowful despair into which Mary was plunged, notwithstanding the philosophic expostulations of her father, who considered that such weakness made her rank "among the commonalty and mob of her sex." Shelley felt as if only her form remained, and that her proper self had fled and left him alone in this dreary world (Vol. ii., p. 274). In November, 1819, however, her spirits returned with the birth of a little boy, who was

subsequently baptized (!) by an English clergyman, receiving the names of Percy and Florence, where he was born. Shelley's thoughts were further diverted from his troubles by the passionate interest he felt in the political disturbances taking place in England. What he wrote is marked by considerable moderation in some respects, while containing violent attacks upon existing abuses. The true patriot, he says, "will discourage all secret associations which have a tendency, by making the nation's will develop itself in a partial and premature manner, to cause tumult and confusion" (Vol. ii., p. 296).

Shelley and Godwin are once more enemies in consequence of the miserable debts in which the latter was involved. We find Shelley obliged to intercept the letters written by Godwin to Mary in consequence of the injurious effect they produced upon her and the infant at the breast —

> A correspondence with your daughter cannot be renewed. It was ever wholly improper, and leads to specious imputations against both herself and you, which it is important for her honour as well as yours that I should not only repel, but prevent. She has not, nor ought she to have, the disposal of money ; if she had, poor thing, she would give it all to you (Vol. ii., p. 325).

Godwin, who described this letter as scurrilous, does not shine in his correspondence with his son-in-law. It may be said that the wrong which Shelley had inflicted upon him in the abduction of his daughter still rankled in his breast, and no doubt the sore was never perfectly healed ; but the real cause of the present ill-feeling was his being involved in debt and the unreasonable demands he made upon Shelley to relieve him. He writes to the Gisbornes in 1820 :—"Domestic peace I might have—I may have—if I see you, I shall have —but have not, for Mary suffers dreadfully about the state of Godwin's circumstances. I am very nervous, but better in general health" (Vol. ii., p. 326). Referring to the death of a little child in whom he was interested, he says :—"It seems as if the destruction that is consuming me were an atmosphere which wrapt and *infected* everything connected with me" (p. 327). Dr. Dowden refers the real or imaginary attack upon Shelley in the post-office at Piza to this period. He alleged that while asking for letters, a stranger in a military cloak, on hearing his name, felled him to the ground, and addressed him as "that atheist Shelley." Vain attempts were made to track the assailant. Shelley's friend,

Peacock, regarded the story as unreal. All one can say is that it looks suspiciously delusional when taken in connection with the strange incident at Tremadoc.

Shelley's health was by no means bettered by disputes which arose between his wife and Miss Clairmont, who was suffering deep distress from the conduct of Byron in not allowing her to visit her child, Allegra. Shelley had a difficult part to play in endeavouring, not only to preserve peace at home, but to mitigate the bitter feelings which found expression in the correspondence between Byron and the injured Claire. Shelley always manifests a very friendly feeling to her in his letters, but he scarcely pleads her cause when addressing Byron, in the indignant tones which one would have desired.

(*To be concluded in the next Number.*)

Leçons sur les Maladies du Système Nerveux faites à la Salpêtrière. Par J. M. Charcot.

(*Concluding notice.*)

In the sixteenth lecture, Professor Charcot narrates the history of an epidemic of hysteria occurring in a family which had devoted itself to the vagaries of modern spiritualism. It is very probable that many such instances of the grave forms of hysteria are to be ascribed to practices which tend to impress with awe the imagination of neurotic subjects. In the succeeding lecture the treatment of such cases is discussed, and the importance of isolation is insisted on. Statical electricity and cold baths are also recommended, but the bromides are, according to the author, of no service.

The rest of this work is devoted to hysterical manifestations occurring in males, and the important part taken by injuries of various kinds is illustrated by numerous cases of the greatest interest. To physicians and surgeons who are called upon to examine and report on "railway cases" Professor Charcot's remarks are invaluable. Hysteria in man is by no means uncommon, and this is a fact which at the present time is not sufficiently appreciated. Subjective symptoms after injuries are on obvious grounds often to be regarded with some scepticism; but the point which Professor Charcot tries to enforce is the connection which subsists be-

tween traumatism and hysteria. Anyone who attentively reads these lectures will derive material help in the often difficult task of differentiating between the malingerer and the hysteric. A brief account of a patient whose case is fully narrated in the nineteenth lecture exhibits very clearly the influence of an injury in the production of functional paralysis. The patient was a youth of eighteen, of neurotic disposition, who fell a distance of seven feet. For a few minutes he remained where he fell, apparently unconscious. He was found to have sustained some slight contusions of the shoulder, ankle, and knee on the left side. Three days after the injury the left upper limb became weak, and within a month the extremity was absolutely paralyzed. Nine months later he came under the notice of Professor Charcot. The arm, although still quite powerless, showed no trace of contracture. The muscular masses had undergone no atrophy, and their electrical reactions were normal. Sensation was lost in the limb, and the muscular sense was absent. There was also hemianæsthesia of common and special sensation on the left side of the body. On the same side there was marked contraction of the visual field for colours, and the circle for red was more extensive than that for blue—a phenomenon to which allusion has already been made, and which Professor Charcot believes to be characteristic of hysteria.

All the probable causes of a monoplegia of this nature are fully discussed, and the author demonstrates that hysteria, and hysteria alone, could account for the symptoms. It was subsequently found that hysterogenic zones existed in various parts of the body, and on exerting pressure on one of them a typical hystero-epileptic attack followed. He continued to have these seizures for several days, and after one such seizure the patient regained the use of his arm.

Cases of hysterical paralysis of the upper limb occurring after an injury are apt to be ascribed to a lesion of the brachial plexus. In the latter case the muscles undergo rapid atrophy and present the reaction of degeneration, the tendon reflexes are abolished, and the skin often becomes cold, livid, and mottled. Certain peculiarities in the mode of distribution of the anæsthesia are elaborately discussed and illustrated. Attention is drawn to the fact that in hysterical monoplegia the loss of sensation does not follow the track of the nerves. In lesions of the brachial plexus the reverse is the case, although it must be remembered that sometimes

sensation is but little involved, and that when it is impaired the defect may be transitory.

Whilst discussing one of these cases of hysterical monoplegia, Professor Charcot incidentally remarks on the existence of monocular diplopia, a condition first noticed as occurring in hysteria by Parinaud at the Salpêtrière. Monocular diplopia may be due to certain local defects, such as early cataract, in certain cases of astigmatism, and to the use of atropine and eserine; but apart from these causes it is found occasionally in hysteria, and when present is attended with certain visual peculiarities. An object held quite close to the affected eye appears much larger than its actual size (*macropsia*), but when viewed at a distance of fifteen or twenty centimeters it seems to be three or four times smaller than natural (*micropsia*).

Professor Charcot, remarking on the therapeutics of hysterical monoplegia, directs attention to Dr. Russell Reynolds's investigations into those forms of paralysis dependent on idea. The author then proceeds to describe the various phases of the hypnotic state, and he points out that it is often possible to obtain artificially by suggestion a perfect imitation of hysterical monoplegia following on injury.

The twenty-third and twenty-fourth lectures are devoted to the discussion of "hysterical hip."

A graceful tribute is paid by Professor Charcot to the remarkable clinical acumen of Brodie, who was the first to direct attention to hysterical affections of joints. The chief diagnostic features of hysterical hip are reproduced from the original work of the great English surgeon. The affected lower limb appears shortened in consequence of the muscular contraction, and for the same reason the thigh is fixed, and moves with the pelvis. These features are observed also in organic hip disease. The chief point of differentiation is the character of the subjective symptoms. Pain, it is true, is often situated both in the hip and knee, as in the organic affection, but in the functional disorder there is tenderness of the skin over the joint, and usually over the lower part of the abdomen. This cutaneous hyperæsthesia (Brodie's sign, as Professor Charcot terms it) is very characteristic of the hysterical disorder. It is well to bear in mind that occasionally actual structural change in the hip joint may co-exist with the hysterical phenomena, but exploration under chloroform will usually lead to a correct diagnosis. Professor Charcot points out that suggestion during the

hypnotic state and traumatic causes often of slight degree may give rise to a condition identical with hysterical hip.

In the twenty-fifth lecture a case of functional monoplegia of the upper limb is described, which ensued after a severe injury. The loss of power was accompanied by anæsthesia, and presented all the characters already noticed as occurring in hysteria. The influence of *local shock* is fully discussed, and the difference between it and *local stupor*, as described by Verneuil, is pointed out. In the latter condition loss of power and anæsthesia may be present, but they depend on pressure exerted by inflammatory swelling on the nerves and vessels. In the patient, whose history provides the text of this lecture, a plaister apparatus was applied to the fractured forearm. The paralyzed upper limb, which had been previously flaccid, became contractured, the condition exactly corresponding with that so often found in hysterical subjects. Much benefit followed the methodical use of massage, but there remained some permanent flexion of the fingers, probably due to the formation of fibrous tissue.

The concluding lecture deals with the subject of hysterical mutism. In this condition the patient is unable to whisper, or even to imitate the movements of articulation. The deaf mute may utter sounds under the influence of emotion, but the hysterical mute is absolutely aphonic, the condition being one of pure motor aphasia. Professor Charcot points out that by means of suggestion in hypnotized subjects, hysterical mutism may be produced artificially.

In the Appendix to this work many valuable cases are narrated with references. A short account of hysterical muscular atrophy by Babinski is especially interesting and important.

In conclusion we can only repeat the opinion already expressed, that these lectures fully sustain the high reputation which Professor Charcot has so long enjoyed throughout the world of medicine.

The Morphia Habit and its Treatment. By Dr. ALBRECHT ERLENMEYER, Heuser's Verlag, 1887.

The subject, morphia craving, is one of considerable importance. The high pressure at which life is carried on in the present age, the many physical evils involved in such, the tendency, so marked nowadays, to escape from all forms

of discomfort by fair means or by foul—these must bear the blame of much of this prevalent and increasing vice. Dr. Erlenmeyer deals, in full, with its etiology, which includes not merely all varieties of pain, but all forms of discomfort, asthma, vomiting, sleeplessness, melancholia. The strange, and at once the dangerous element in the use of morphia is that it tempts, not only by causing the *habitué* to forget all troubles, but that it actually renders him or her, for the time being, actually more capable—truly a Satanic guise. The cultured classes and doctors, in particular, are amongst the chief victims. The author gives the next place to officers. An important point raised is that a single injection may start the craving, *acute morphia* habit. The moral to be read in every line of the causation is that the syringe must never be used except by the hands of the medical man.

The pathological anatomy of morphia poisoning is treated in a somewhat prolix chapter. Considering the indefiniteness of the results, it might have been more summarily dismissed. Very interesting is the craving witnessed in new-born children, the mother being a morphinist, in illustration cases of severe collapse in the infant removed by a morphia injection are cited.

The symptoms of abstinence, in particular the collapse, sometimes threatening life, are dwelt upon, and in a subsequent chapter they receive detailed consideration, together with the best methods of meeting them.

The modes of cure—the gradual, the sudden, and the rapid (a half-way house)—are fully considered. The author decides upon the rapid method, and he gives ample instructions as to the mode of carrying out the cure.

The value of cocaine as a means of lessening the pains of abstinence is discussed. This invention of the nether regions (Höllenmittel) is strongly discountenanced. The cocaine craving, so likely to ensue when the drug is used for the above purpose, forms a Charybdis which offers nothing really more desirable than the Scylla escaped from.

A very copious list of cases of morphia-craving is appended, and an exhaustive literature concludes. The book is a valuable one, but, may we suggest it, was it essential it should be quite so big?

The Principles of the Treatment of Epilepsy. By Dr. Albrecht Erlenmeyer.

The principles consist in a careful investigation of each epileptic case and treatment, not general, but individual. Dr. Erlenmeyer makes the complaint, probably with justice, that cases of epilepsy are far too frequently treated in a rule-of-thumb manner, and scarcely at all investigated. He then proceeds to describe how a case should be examined (the details are somewhat alarming, it must be confessed), and subsequently describes the many varieties of epilepsy, including Jacksonian. On p. 13 we find one cause given which sounds theoretical, "commotio cerebri." In the investigation of causes he insists that the history should be most carefully taken; and under the head of injury should include even a simple box on the ear! We would suggest that so careful a history will scarcely ever fail to discover some cause, right or wrong. A case of epilepsy cured by trepanning, which operation was done at the author's insistence, is included in the text of some remarks at the end of the brochure.

On Jacksonian Epilepsy. By Dr. E. Rollaud, Médecin des Asiles "John Bost." De Laforce (Dordogne). 1888.

This, a small volume of nearly two hundred pages, is one of the publications of the Progrès Médical. It is a fairly complete monograph on Jacksonian epilepsy. A preliminary chapter is devoted to the anatomy and physiology of the subject, Dr. Ferrier's experiments finding special mention. The definition, history, and symptomatology are treated of in successive chapters, the last being introduced by a fully-reported case of Dr. Jackson's. The interesting post-epileptoid phenomena sometimes observed, *e.g.*, aphasia (chiefly in cases of right-sided convulsive attacks), hemianopsia, hallucinatory disturbances of sight and hearing, are carefully recorded. A very valuable table of 109 cases derived from all sources is an important feature of the book. This is supplemented by a chart, which shows most beautifully the motor zone as the part almost solely affected by the lesions in the 109 cases. The pathology of the disease is next considered. The diagnosis between this and true epilepsy and hysteria—the latter sometimes simulating the disease almost

exactly—occupies a concluding chapter. In the chapter on treatment, Horsley's valuable work on brain surgery is not forgotten, a *résumé* of his cases being appended. In conclusion, one must not omit to add that Dr. Rollaud records himself a number of cases which have come under his observation. The fruits of John Bost's work have still to be gathered in. We can certainly recommend the work.

Nosographie des Chorées. Par le Dr. Maurice Lannois. Paris. Baillière et Fils, 1886.

In an interesting, though short, introductory chapter the author points out that the original signification of the word chorea (dance), more especially in connection with the so-called chorea Sancti Viti, St. Vitus' dance, had reference to an eccentric, frenzied dance epidemic in the Middle Ages. It therefore had no connection with the affection to which Sydenham applied the name St. Vitus' dance, which same is the familiar chorea of the present day. The confusion which resulted from this and from subsequent departures in the nomenclature is dwelt upon, and finally the author, following Trousseau, adopts the term chorea as a generic term. From the group thus included he eliminates all forms of genuine trembling (*e.g.*, alcoholic, mercurial, paralysis agitans, general paralysis)—all true ataxic movements—all forms of cramp (*e.g.*, writers' cramp).

On p. 8 we find the list of choreas; it is subdivided into three principal classes:—

1. The rhythmic choreas—the epidemic forms including the original St. Vitus' dance. This group is essentially emotional in its character, and the hysterical forms belong here.

2. The pseudo-choreas, including the electric choreas, the convulsive tics, &c.

3. Chorea, par excellence; also some other forms—the limp chorea of Ch. West and Gowers, the chorea of pregnancy, &c. Hemi-chorea and hemiathetosis are also placed in this group.

It is not possible for us to take up in detail these several forms. The book is rather clinical than pathological in its intention; still, pathology is not wholly ignored, more especially in regard to the last group. The negative nature of our knowledge on this subject is pointed out, there being

no real anatomico-pathological basis, nor, for the matter of that, any experimental basis, though Dr. Lannois does not omit reference to Angel Money's experiments. The vexed question of the relation between rheumatism and chorea is briefly referred to. We commend the book as an interesting contribution to medical literature.

Des Vertiges. Par le Dr. E. Weil. Paris. Baillière et Fils, 1886.

Vertigo is a very interesting symptom, common, however, to an extensive group of affections. Dr. Weil has courageously attacked the hydra-headed monster, and has attempted to classify the many varieties of vertigo on a pathological basis. The book is worthy of very careful reading and thinking over. The long list of vertigos which we find on p. 26 is headed by Menière's vertigo, and this interesting disease receives very special attention. A preceding chapter leads up to this by some important physiological considerations on the subjects of equilibration and vertigo. Classed together, we find Menière's disease, or auricular vertigo, with vertigo of cerebellar lesions, these two standing as instances of direct causation. Instances of indirect causation, *i.e.*, at a distance, are furnished by cerebral affections, tabes dorsalis, disseminated sclerosis. The long list of functional disturbance of the apparatus of equilibration follows next. We may not study them here with the author, but we would urge again, in favour of the treatise, the importance of the subject and the evident careful thought bestowed upon it by Dr. Weil.

Kraniometrie und Kephalometrie; Vorlesungen gehalten an der Wiener Allgemeinen Poliklinik. Von Professor Dr. Moriz Benedikt, Mit 36 Holzschnitten. Wien und Leipzig, 1888.

As is well known, Professor Benedikt has devoted many years to the study of the relation between the capacity of the skull and the mental characteristics associated therewith. The instruments which he has invented and employed for this purpose are highly ingenious, and the number of observations he has made is enormous. It will be remembered by those who attended the psychological section of the

International Medical Congress held in London in 1881, that Dr. Benedikt exhibited a very large number of brains of criminals, and endeavoured to demonstrate certain departures from the normal configuration of the cerebral convolutions. We have had the opportunity of accompanying him to the convict prison in Louvain, where he examined and took the measurements of a number of the worst class of criminals. In his opinion the results were confirmatory of his previous observations.

The work before us, consisting of 27 lectures, extends to 172 pages, and contains 36 wood-cuts. The instruments employed are described in detail, and illustrated. We cannot attempt to describe them; in fact, without illustrations they would not be understood. All those who are interested in the study of craniometry and cephalometry must obtain the work for themselves, and we hope that the Professor's untiring efforts to induce his *confrères* to take up this important inquiry will be rewarded as it deserves to be. Whether other observers will confirm his conclusions remains to be seen, but good must result from the patient and laborious researches which Benedikt has instituted, and by his ingenious instruments has enabled other observers to repeat and extend. It is probably to the young scientists in this department that we must look rather than to older men who are less disposed to adopt novel measures of observation, and to undertake the laborious task which the lecturer invites his hearers to pursue. Professor Benedikt has already written the following:—"Ueber einige Grundformeln des Neuropathologischen Denkens," "Die psychischen Functionen des Gehirnes im gesunden und Kranken Zustande, "Zur Lehre von der Localization der Gehirnfunctionen," "Ueber Katalepsie und Mesmerismus," "Die Elektricität in der Medicin," &c.

Educational Ends, or the Ideal of Personal Development. By Sophie Bryant, D.Sc., Lond. Longmans, Green, and Co., 1887.

The authoress deserves a hearing, as being a Doctor of Science of the London University and as the Mathematical Mistress of the North London Collegiate Schools for Girls. The relation of education to psychology is fully recognized. Mrs. Bryant acknowledges the assistance she has received from articles in "Mind," by Mr. James Ward, and "Psycho-

logical Principles." It is not easy to give in a small compass the train of thought pursued in this philosophical work, as one part depends so closely upon the other. The main conclusions may be succinctly stated thus:—The individual improves by process of growth rather than of manufacture. Every stage must be an improvement, an approximation towards perfection. Education connotes encouragement, assistance, and organization of means by which other minds can assist true development in the mind undergoing development (p. 290). True development for the individual is the development of that mind which is set throughout on the attainment of those objects which it takes to be right, and on the understanding of its own world. Its special characteristics are the double one of resoluteness in the pursuit of its practical objects and persistence in the attempt more clearly to see them, and with them all facts, in the light of thought. Each personality thus *becomes* within the limitations of its original character and circumstances the best it can become. This becoming is, to the educator's reflection, the ideal and development, the end which for each individual the educator has in view (*loc. cit.*). In drawing attention to this thoughtful treatise, we should add that although the writer has not assumed a knowledge of psychology in the reader, she has had specially in view those students "for whom the study of psychology should precede all other study."

Spinoza. By John Caird, LL.D., Principal of the University of Glasgow. William Blackwood and Sons, Edinburgh and London, 1888. ("Philosophical Classics for English Readers," edited by William Knight, LL.D.)

The latest contribution to this series fully maintains the reputation which its predecessors have won for these admirable biographies of philosophers. The large work by Mr. Pollock, and that of Rev. James Martineau, must of course remain classic treatises on Spinoza and his philosophy. Dr. Caird, however, endeavours to make a study of the latter from a different standpoint from that of either. Such being the case, the smaller volume under review is an independent treatise, and not an epitome of former productions. It is not our intention to give an analysis of Dr. Caird's interesting and able book. We will only state Spinoza's position in regard to the independence of mind in relation to body. The

editor asks how the survival of the former after the destruction of the latter can consist with "the fundamental doctrine laid down by the philosopher of the uniform parallelism of thought and extension, or with the principle that to all that takes place in the human mind as a mode of thought there must be something corresponding in the human body as a mode of extension." We are to suppose that not only the mind, but an "essence" of the body, endures when everything corporeal has disappeared. Matter was to Spinoza as divine as mind. Immortality is, so to speak, a mind from which the illusion of time has disappeared. We must not, however, pursue this subject into the intricacies into which Spinoza would lead us. On this and the numberless questions discussed with so much subtle ability we must refer the reader to Dr. Caird's treatise.

Le Cerveau et L'Activité Cérébrale au point de vue psycho-physiologique. Par ALEXANDRE HERZEN. Paris. Librairie J. B. Baillière et Fils, 1887.

Professor Herzen's name is familiar to the readers of this Journal as the author of articles on "The Physical Conditions of Consciousness" (April and July, 1884). The question of consciousness and personality occupies a large proportion of this book, and includes these papers. The other portions of the work have not appeared in the Journal. The whole book is a presentation of Herzen's most important views, and deserves to be studied, although his conclusions differ in some respects from those generally held by English physiologists and psychologists. The volume forms one of the series published by M. Baillière under the title of "Bibliothèque Scientifique Contemporaire."

Morality and Utility, a Natural Science of Ethics. By GEORGE PAYNE BEST, B.A., M.B., Cantab. London. Trübner and Co., 1887.

This is a thoughtful book, which enters upon a range of subjects considerably beyond the prescribed limits of this Journal. The author aims at showing that morality is reached by the operation of the same generalizing and universalizing tendency of mind which give us the axioms of mathematics. Why, then, are the results reliable in the one

case and so often erroneous in the other? The explanation given is that "the data from which the axioms are formed being of a simple character, we can readily provide that the facts of which the axioms are a concreted expression shall have a real uniformity . . . but the data which go to the mental construction of Morality, and the facts colligated under that head, have neither simplicity nor the uniformity of the mathematical facts. Hence, when such a uniformity is assumed (and it is assumed in morality) the result is one which does not tally with facts. . . . We are dealing with the word of men, women, and children in all their concreteness and difference, but we are treating them *as if they were mere ideas*" (p. 187). The general tendency of this treatise is to bring ethics into harmony with biological science.

Observations on Mental Derangement. By ANDREW COMBE, M.D. Edited and abridged by Arthur Mitchell, C.B., M.D., LL.D., Commissioner in Lunacy for Scotland, &c. Edinburgh, Maclachlan and Stewart. London, Simpkin, Marshall, and Co., 1887.

We are glad to see an abridged edition of Dr. Combe's "Observations." They could not have been edited by a more sympathetic editor than Sir Arthur Mitchell, who has prefixed a preface, the only fault of which is its brevity. A short sketch of his life and a portrait, if one exists, would have added to the value and interest of this little book. The force and value of Dr. Combe's writings illustrate in a remarkable manner the advantage of a few fundamental principles, and their applications to human welfare in spite of these principles being associated with a number of minor errors. Phrenology bore good fruit, because the kernel was sound, although covered with husks which have now been stripped off by more careful and discriminating observation. Having grasped the truth that the brain is the organ of mind, it followed that mental derangement was always associated with disorder of the brain. The doctrine of the plurality of organs led also to a much more intelligible understanding of the existence of partial insanity. When Combe wrote, the recognition of the dependence of the healthy mental operations upon the normal action of a material organ was very imperfect, and its enforcement by Combe in all his writings exercised a very wide and wholesome influence upon the

public. The editor has used a wise discretion in omitting phrenological nomenclature, while the essential principles of the doctrines of Gall are retained. It is observed that "in no part of the work is Dr. Combe's wisdom better disclosed than in that which refers to treatment." The soundness and practical nature of his advice will be appreciated by those who will read the book. It is interesting to find him pointing out the importance of providing the inmates of asylums with occupation in connection with the Dundee Asylum, of which Dr Mackintosh was at that time the superintendent, fifty-four years ago. The editor takes pleasure in recording that he is still living and enjoying his repose after a long and distinguished career.

Insanity: Its Classification, Diagnosis, and Treatment; a Manual for Students and Practitioners of Medicine. By E. C. Spitzka, M.D. New York: E. B. Treat, 1887.

The author states in his preface to this, the second edition of his work after a lapse of four years, that he has in preparation a larger treatise upon a kindred subject in which he will incorporate various suggestions which he has received and for which sufficient room is not permitted within the limits of a manual. Some changes have, however, been made, and among these may be mentioned the adoption of the term paranoia in preference to that of monomania. As this name has been adopted by Mendel for the favourite German term verrücktheit, it is probable that it will come into general use. It cannot be said to have taken root in British soil, and certainly there is nothing in the etymology of the word which makes it distinctive as applied to the classic cases for which it is now used. Dr. Spitzka observes: "If we cast a glance at the earlier literature with reference to the category of patients who are classed as monomaniacs, we shall find that the popular mind appreciated in a crude way the distinctiveness of the morbid ideas of such subjects from the ideas of those suffering from other forms of insanity. The English word 'cracked' happily expresses that there is but a flaw and a relative shifting of the elements of the understanding, not a general confusion and an annihilation of them. Where language has been used accurately such patients have neither been termed foolish nor crazy. From distant times the Germans have

employed the expressive term of 'fixe idee' to designate the delusions and projects which are such prominent features of monomania, and which are properly rendered by the word-picture, a 'Bee in the Bonnet'—a 'screw loose.' The noun 'verrücktheit' is derived from the vernacular adjective 'verrückt' (shifted from its place), which is a good metaphorical equivalent of the English 'cracked,' and perhaps a better designation, in so far as it directs attention to the prominent feature of monomania, the mal-association of special mental components" (p. 290). Here, again, the etymology of the word gives no distinctive indication of its meaning, seeing that "shifted from its place" is equivalent to "derangement," the synonym of ordinary and complete insanity.

This edition contains precisely the same number of pages as the former one, but is in a more handy form and is exceedingly well got up. A very short appendix contains the classifications of insanity, which were the result of the Antwerp Congress of Psychiatry. The recently-introduced hypnotic "paraldehyde" is spoken of as a failure in the author's hands, as well as in those of most American physicians. We are surprised at this, and should be disposed to attribute the want of success to an inferior article, as is admitted to be possible by Spitzka. No doubt, as stated by Sommer, its combination with bromide of potassium forms an excellent remedy in insomnia and restlessness.

We have only to repeat the favourable opinion which we expressed of this work when it first appeared.

Elements of Physiological Psychology: A Treatise on the Activities and Nature of the Mind from the Physical and Experimental Point of View. By GEORGE T. LADD, Professor of Philosophy in Yale University. London: Longmans, Green, and Co., 1887.

The brief but favourable notice of this work in the October number of this Journal requires to be supplemented by an analysis of its contents.

Part I. deals with the nervous mechanism, and gives a complete description of its elements and functions. This section terminates with the consideration of the question, What is the relation of the mind to this mechanism? Can it set such molecular mechanism at work, or can it in any

way determine the character of its functions? Up to this point there is no occasion to presuppose any act of conscious thought or feeling. Grant a molecular mechanism as it is preserved by vital forces; grant also the action of external stimuli upon the organs of sense and the necessary blood-changes in the brain, and the nervous mechanism might be able to perform its functions until we reach the higher class of phenomena of mind or consciousness. Whether these can truly cause any of the changes in the nervous mechanism is considered in the succeeding sections.

Part II., in dealing with the correlations of the nervous mechanism and the mind, contains the description of the localization of cerebral functions, the quality of sensations, their quantity, the presentations of sense, the time-relations of mental phenomena, the physical basis of the higher faculties, and certain statical relations of the body and mental phenomena. The author, who throughout the work exhibits a cautious and judicial spirit, sums up by saying that it cannot be affirmed that "all the phenomena of consciousness can be regarded as strictly pre-determined by the constitution, environment, and independent action of the corporal elements" (p. 582). Nor, again, can he admit the hypothesis that the mind is the builder of the body. Both extreme views are rejected as being uncalled for, notwithstanding the fullest admission of the profound mutual relations, or, as the fashionable expression terms them, the correlations of the molecular mechanism and the phenomena of consciousness.

The third part advances to the consideration of the nature of the mind, and describes its faculties and their development. The real nature of the connection between brain and mind is carefully discussed. The author supports the conclusion that "the subject of all the states of consciousness is a real unit-being called mind, which is of non-material nature and acts and develops according to laws of its own, but is specially correlated with certain material molecules and masses forming the substance of the brain" (p. 613).

Professor Ladd regards all theories of mental development which maintain that some one fundamental activity is the origin of the different faculties as fallacious. To him his theories are not supported by the fact that successive periods of life are accompanied by certain stages of development. There may be in mental development such time-order without the latest-developed faculties being any the less essential

constituents of the mind. In the terms of the writer's formula, "the development of mind can only be regarded as the progressive manifestation in consciousness of the life of a real being which, although taking its start and direction from the action of the physical elements of the body, proceeds to unfold powers that are *sui generis* according to laws of its own" (p. 632).

On the one hand the author admits that the changes in the brain are a *cause* of the states of consciousness, the mind behaving as it does, the cause of the behaviour of the cerebral molecules of the brain; while on the other hand he denies that the sole cause of mental activity can in any case be found in this condition, and he affirms that it is equally true to say that the states of consciousness are a cause of the molecular condition of the brain. So, then, he concludes that the mind is a real being which can be acted upon by the brain, and which can act on the body through the brain, and, indeed, that this view is the only one compatible with all the facts of experience. Finally, while physiological psychology is unable to determine the origin or destiny of what we call mind, it discovers no reason why it should not exist in some other relation than that which it holds in this life to the structure of the cerebrum. More than this, Professor Ladd maintains that there are certain phenomena that seem to make this possibility quite probable. Beyond this it does not pretend to go, and leaves the question to the departments of rational psychology, theology, &c.

The standpoint of the author of this work will be abundantly clear from the foregoing analysis. That it runs counter to the prevalent teaching of psychologists in this country cannot be denied. It is, however, an advantage to have this aspect of the great question before us discussed in an able and philosophical manner from the other point of view.

La Raison dans la Folie, étude pratique et Médico-Légale sur la persistance partielle de la raison chez les aliénés et sur leurs actes raisonnables. Par le Dr. VICTOR PARANT, Directeur-Médicin de la Maison de Santé Toulouse, Paris. Octave Doin Éditeur, 1888, pp. 423.

We have pleasure in giving a cordial welcome to this work, which enters upon a field of observation and reflection which has been almost entirely neglected. This neglect has doubt-

less been the natural consequence of the fact that the primary object of the alienist in the examination of a patient is to discover proofs of the loss of reason, and not of its presence. Seeing, however, that the experience of those familiar with the insane, convinces them of the frequent co-existence of indisputable insanity with normally acting intelligence outside the range of delusion or impulse, while, on the other hand, the lawyer is constantly disputing this combination of mental states in the same person, it becomes an imperative duty on the part of alienists to demonstrate how large an amount of reason is compatible with mental alienation. This task Dr. Victor Parant has undertaken, and has performed it in the able manner his former publications would lead us to expect.

The author proves that the retention of the memory is no proof of a patient's sanity. It may even remain in dementia. Moreover, in some instances the memory may be hyperacute. Again, the occupations of patients in asylums, &c., including art and the drama, are illustrations of certain powers being retained. The conversation of a lunatic may be reasonable; his letters, and even his will, may be free from a trace of mental disorder. Physiognomy may be deceptive and reveal absolutely nothing of the demon behind the mask. A higher quality of mind than memory, even the judgment, may be intact. Some will deny this; but those who do so would be obliged to admit that it may be available in business matters in persons undoubtedly labouring under mental disease. A patient may be conscious not only of his surroundings, but of his own alienation; or he may be well aware that he is dominated by imperative conceptions or impulses, and who could deny that a vast number of the insane know right from wrong, the difference between good and evil? Then as to conduct—how many patients are driven to commit one species of crime (or what would be crime if they were responsible) who would be the last people in the world to commit other criminal acts? What, again, can be more remarkable, as a proof of a certain amount of remaining reason, than the desire of a patient to be protected from himself—that is to say, from his own hallucinations? The simulation of insanity by the insane is itself evidence of certain mental powers being in force and of the persistence of motives and foresight. The same may be said of the dissimulation of insanity by the insane as bearing on the same point. What shall we say as to logic? Well,

granting the truth of the well-known dictum of Locke, almost all patients labouring under delusion are logical in their acts. Some suicides are, it must be allowed, desperately illogical. As Martial's epigram has it:—

> Himself he slew, when he the foe would fly ;
> What madness this, for fear of death to die.

Some other suicides, however, are logical enough if once the premise is admitted. A patient is logical who refuses to take food, believing that the Almighty has commanded him to starve.

The application of the principle that reason may survive in certain directions in those who have "lost their reason," paradoxical as it may seem, is of the utmost importance in relation to medico-legal questions. The persistence of reason, considerable as it may be, does not render a person necessarily responsible for his acts. On the other hand, however, a partial amount of reasoning power cannot be allowed to carry with it, so far as legal punishment is concerned, a corresponding partial responsibility. A delicate and difficult question is no doubt raised by the position here taken; but we are unable to see how the mental physician can arrive at any other.

We have said enough of the general tenor of this work to induce our readers to study the treatise for themselves. It is one which will add to the reputation of the author, and, through him, of the family of which he is so worthy a member. His grandfather was the celebrated Dr. Foville, and his uncle was the late Achille Foville, whose loss we have had so recently to deplore, and of whom obituary notices have appeared in the last and present number of the Journal. To the memory of these distinguished relatives this volume is most appropriately dedicated.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Russian Retrospect.*

The following Address* was given at the opening of the first session of the Russian Medico-Psychological Association in Moscow (5th of January, 1887), by the President of the session, Professor Mierzejewsky, the subject being "Mental and Nervous Diseases in Russia: Conditions Favourable to their Development and Measures towards their Decrease":—

All measures tending towards the prevention of mental and nervous morbidness ought to occupy one of the foremost ranks as regards the question of the protection of public health, taking into consideration the following facts:—(1) Cases of insanity and nervous diseases increase enormously in our days; (2) they pertain mostly to a serious chronic and protracted character; and (3) individuals suffering from certain nervous and mental diseases are incapable of fulfilling the duties of citizens, that is to say, they are devoid of the power of adding to the treasury of public welfare and of helping to forward social progress; therefore the increase of nervous and mental diseases unavoidably creates an immense detriment to the substantial powers of a nation, viz., to its intellectual and moral progress, as also to its material prosperity.

In looking more attentively at the circumstances favourable to the development of mental and nervous diseases it is very easy to observe that they are generally the result of an abnormal social condition; thus the abuse of alcoholic liquors and the influence of social surroundings, excluding hereditary transmission, occupy the foremost rank in the propagation of the above-mentioned diseases. Consequently the question as to the decrease of nervous and mental diseases is nearly related to the treatment of these social calamities; the measures, therefore, taken towards the diminishing of these last will serve at the same time in the light of important measures towards the decrease of nervous diseases and psychoses.

To what an extent social calamities influence the development of mental and nervous affections and at the same time become the cause of degeneracy of generation, degeneracy of its strength and energy—these essential factors of social duties and responsibilities of citizens—will be seen by the following items:—

Heredity.—The number of cases of mental and nervous diseases brought on chiefly by hereditary transmission in direct or collateral lines of relationship or by atavism is very considerable; thus out of

* We prefer giving this Address in the distinguished Professor's own English translation without any material alteration.—[Eds.]

three or four individuals mentally affected, the illness of one of them can be traced to the above cause. As regards disorders of the nervous system, hereditary transmission is one of the principal factors in the development of hysteria (50 to 70 per cent.), epilepsy (20 per cent.), St. Vitus's dance, progressive atrophy of the muscles, Friedreich's disease, as also of systematic and combined affections of the spinal cord.

However, not all individuals predisposed to psychoses become a prey to insanity. Many of them escape this affection, whereas a considerable number of individuals of this category present some symptoms of physical and moral degeneration. The latter, though not tending towards any mental disease, still manifests itself by peculiar traits in the character of individuals, such as absence of psychical equilibrium, psychical stability, and psychical reaction, traits which distinguish such individuals from others endowed with a healthy constitution. Such individuals are very often deprived of the adaptedness indispensable for carrying out social functions, and, owing to the peculiar stamp of their character, are apt to afford a considerable contingent of infringers of criminal law.

Marriages contracted between individuals subject to mental and serious nervous diseases, are very dangerous on account of the following circumstances:—(1) Such marriages very often occur because of the sympathy and impulses frequently existing between degenerate individuals of both sexes ; (2) besides, such marriages are for the most part very abundant in posterity, and therefore contribute greatly to the contingent of degenerated individuals. These unpropitious conditions of hereditary transmission, which manifests itself in several generations, engender a deformed posterity incapable of further prolongation of race. Owing to such conditions many great families, amongst whose ancestors the names of some are inscribed on the annals of history, have become entirely extinct. Generally speaking, thousands of individuals exist who, utterly against their volition and their wish, bear on themselves the heavy brand of hereditary predisposition to mental disorders. Such step-sons of nature in time become step-sons of fate ; in other words, owing to the slightest cause, they fall a prey to insanity or other nervous affections. Lastly, the origin of many mental diseases and nervous disorders, being intimately related to each other, can be traced to one common source, and are, therefore, alike subject to the law of metamorphosis. Thus, the nervous disorders of one generation, combined with unpropitious circumstances, are transformed in the following generation into a psychosis, which last in its turn changes from a debile to a dangerous state, until, after having undergone a range of gradual transformation, a whole race entirely degenerates or becomes wholly extinct.

Taking, therefore, into consideration the facts, which are the result of the latest scientific investigations, that mental diseases and many nervous disorders take their source from one and the same root ; that

alienation, as also idiocy, are, so to say, the products of an unpropitious culture of several stages of generations, the starting point of such culture having been neurasthenia, linked together with other nervous diseases, we will now proceed principally to discuss the measures to be taken towards the decrease of mental diseases, in which are concentrated the highest stages of nervous disorders, accepting on a wide range the solidarity of psychoses and nervous diseases.

The abuse of alcoholic liquors greatly tends towards the development principally of mental diseases and some of the nervous disorders, viz., neuritis and cerebral hæmorrhagia. Cases of insanity caused by the vice of drunkenness amount in the hospitals of St. Petersburg to 7·42 per cent. Intemperance in the use of alcoholic liquors leads towards chronic alcoholism—a state of morbidness which presents so vast a soil favourable to the growth of afflicting social phenomena so intimately related to each other, such as on the one hand pauperism and crime, and on the other lunacy. Indeed, individuals suffering from alcoholism present all the symptoms of physical and psychical degeneracy, and this last to such an intense degree, that under the influence of very insignificant causes these individuals lose the power of displaying the regulatory functions of their psychical centres, and alienation sets in either in an acute or protracted form. Besides, the degeneracy of individuals affected with alcoholism is transmitted to posterity, which often manifests psychoses, epilepsy, and hydrocephalism ; the tendency towards the abuse of alcoholic liquors is also at times transmitted from parents to their children.

The propagation of alcoholism in Russia is due to the easy access to the purchase of alcoholic drinks, to their cheapness, and also to the special kinds of liquor which are in demand in our country. Thus the abolition of the brandy-monopoly and the lowered prices of brandy produced a marked influence on the propagation of alcoholism and on its consequences—nervous diseases. The number of individuals affected with alcoholism in the year succeeding the suppression of the brandy-monopoly in five hospitals of St. Petersburg increased four-fold, comparatively to the number of such individuals in the year preceding the suppression of the monopoly. Further, it is proved that the number of individuals subject to alcoholism is in direct proportion to the quantity of public-houses of certain localities where they propagate their corrupting influence on the inhabitants.

The peculiar species of spirituous drinks which produce drunkenness and, as its result, nervous diseases has also a decided influence on the statistics of lunacy and those of morality in general. Thus Lunier has proved that in those departments of France where the consumption of brandy is comparatively more widely-spread than that of grape-wine, the percentage of cases of insanity, as also the number of accidental deaths, self-murder, and crime, characterized by public infringement of the laws against drunkenness, is much more considerable than in other districts where the consumption of brandy is com-

paratively not so considerable as that of the grape-wine; in a word, the frequent occurrence of each of the above-mentioned afflicting phenomena of social life is in direct relation to the consumption of brandy, and in opposite to the consumption of grape-wine. In comparing these facts there can hardly be any doubt that the above-mentioned phenomena are no chance coincidences, but that on the contrary they are connected with each other as cause and consequence. It is obvious also that these facts are in direct dependency to each other, this dependency being proved by numerous evidences. Lunier has grouped them together and exposed the above-mentioned conclusion, based on returns taken principally from official sources.

The ruinous effect of brandy, according to numerous undeniable proofs, is owing mostly to its being imperfectly distilled. It is a known fact that the brandy on sale contains, besides the ethyle-alcohol, a greater or lesser quantity of amyle, butyle, and propyle alcohol, and other ingredients, the poisonous effect of which on the human organism is confirmed by a considerable number of experiments and investigations. These ingredients can be derived from brandy and investigated separately in relation to their chemical nature, as also to their toxic influence on the human constitution. Possessing trustworthy chemical reactions for their discovery, we can only await the approach of that ideal period when, in accordance with the opinion expressed in the Parisian Congress of 1878, each Government, with the view of preserving public health, will restrict the distillation of all alcoholic drinks except those which contain ethyle-alcohol without any other injurious ingredients. However, it is indispensable to possess more weighty evidence to prove the opinion of some writers that the morbid processes of chronic alcoholism are produced by the use of imperfectly-distilled alcohol, which therefore contains poisonous ingredients, and that pure ethyle-alcohol is not to be considered as a poison in the strict sense of the word. It is, nevertheless, an incontestable fact that spirituous liquors containing the above-mentioned ingredients ought to be placed amongst the prominent factors which produce a most disastrous and pernicious effect on the physical and moral state of mankind and on the increase of insanity.

If, however, alcoholism and heredity are the most important factors in the development of nervous and mental diseases, there can be little doubt that the development of these diseases is also greatly due, not only to psychical organization, which is inherited by an individual from his progenitors, but also to that sphere of society where he lives and in which he has been brought up. Indeed, a certain sphere of society has a great influence on the development of psychoses in individuals already predisposed through hereditary propensities to insanity, and on the development of nervous debility or neurasthenia (the source of the majority of nervous and mental diseases) in other individuals entirely exempt from pernicious hereditary propensities. The contemporaneous social conditions of life, therefore, not only con-

duce towards the extension of nervous and mental diseases, but may justly be accused of abounding in a whole series of circumstances which tend towards the development of alienation. The emancipation from serfdom in Russia of a population of millions of people, the rousing of them from their mental lethargy and passiveness, the summoning of them to vital activity and independency, all these beneficial reforms introduced in the reign of the late Emperor Alexander II. were the means of bringing about a great demand for intellectual culture. This increased competition produced acute excitement of the intellect, and a great reaction on the surrounding circumstances of social life shortly demanded more labour for the psychical mechanism, and also conduced towards its greater deterioration. For since all these reforms were introduced suddenly, almost instantaneously, without any preliminary cultivation of the mind for the reception of such beneficial reforms, therefore the excitement of the intellect and mind of individuals brought about by these reforms most certainly produced too great a reaction comparatively to the habitual functions of the brain, and even in some cases upset its regularity.

Besides the development of commerce and industry the inauguration of new financial and commercial institutions gave birth to a tendency towards gain, to eager pursuit of wealth, and, as their result, to many financial crises, bankruptcy, disenchantment, and severe moral shocks, which all in their turn served to develop mental and nervous diseases.

Disastrous and protracted wars, for instance, the recent war for the freeing of the Sclavonians, the thousands of its victims and the disasters which followed it, kept public opinion in a state of continued morbid excitement and tedious expectancy, serving to create a state of general nervousness, and giving birth to various nervous and mental diseases.

The superfluous requirements of our schools, the high intellectual standard of our days, the overburdening of the brain by impressions, serving only to strain the memory and thereby diminishing the power of combination and of general logical operations, could only produce an unfavourable effect on the nervous system of our youth in its state of early development.

Further, the local conditions of life in Russia present an important peculiarity comparatively to those of other nations. Owing to the immense dimensions of Russia, a great number of persons are often reduced to the necessity of gaining their living at a distance of hundreds and thousands of miles from their birthplace, amidst uncongenial climatic and social conditions. A great fallacy also in an extensive country is the comparatively small number of universities and other intellectual institutions. It is a common fact that a person, having received a higher education and being accustomed to move amongst men of moral and intellectual culture, is forced by circumstances to live in a circle wholly alien to his intellectual level, where

his yearnings after higher aims find no sympathy, and where he is consequently prone to disenchantment and to its frequent result—insanity.

The complex circumstances of contemporaneous social life, the eager pursuit after pleasure, combined with the extreme debility of the present generation, give rise to satiety with those very pleasures or a disgust of them. Such an aptitude to satiety in its turn, favoured by a tendency towards general degeneracy and depravity of the sexual instincts and towards unnatural gratification of the passions, gives birth to moral corruption and to vice, either acquired or inborn. The propagation of syphilis and the modern system of its treatment are in all probability the cause of the frequent occurrence in our days of syphilis of the brain, tabes dorsalis, and progressive paralysis of the insane. Individuals suffering from syphilis, after an ambulatory treatment to which they were subjected, without being obliged to leave off their usual occupations or change their previous mode of life as soon as they perceive the disappearance of all outward symptoms of the illness, and are apt to be indifferent to their serious and very often incurable disease. The outward symptoms of the disease having disappeared without being radically cured, the patient begins to be confident of having undergone an entire treatment; nevertheless the syphilis-poison continues its disastrous work, though in a lingering, secret manner, preparing the whole constitution for unavoidable ruin, and manifesting itself at last—perhaps, only after a considerable lapse of time—by morbidness of the supreme cerebral centres of the psychical or motor functions.

The above-mentioned unfavourable circumstances affecting the weaker range of mankind have engendered that portion of our generation which is characterized by its utter physical and moral debility, by its proneness to morbid nervous irritability, to excitability brought on by the slightest external impressions, and which is characterized by its incapability from excessive weakness to undergo protracted labour or discipline, and owing to the insufficient development of its logical functions is prone to give way to corrupting doctrines and to pessimism. No wonder, then, that on a soil so uncongenial to the ideal of moral hygiene pessimistical philosophy has spread such deep roots, being aided by circumstances favourable to its growth.

Nihilism, no doubt, is an outcome of the doctrine of pessimism. As in the Nirvana of the Buddhists, also the teaching of Hegesias and his modern representatives, Schopenhauer, Leopardi, and Hartmann, the ultimate aim of pessimism tends towards suicide—self-destruction. To live, to exist is a misfortune, and death is preferred to life as a calm sleep, devoid of dreams. By means of dialectical theories and speculative combinations, nihilism tends towards moral self-destruction, that is to say, towards the annulment of ideals, ethical notions, truths—the appendage of several ages—all these being the propensities inherited by the brain to react in a determined way

on the influences of the external medium of a certain social structure. The effort to renounce an historical era celebrated by a whole range of glorious events, to renounce a culture of several succeeding ages, the tendency to curb the liberty of individuals, and their efforts towards intellectual development for the sake of attaining a vaporous and fantastical aim, for the sake of unexampled experiments, which produce only new victims and general disasters, all these unfortunate, shallow fictions of the feeble human mind are to be looked upon as the symptoms of degenerated creative faculties. These tendencies could only come to light and ripen on a soil favourable to the product of minds characterized by degenerate structure, and could only influence the unsettled consciousness of youth and its ardent imagination, so prone to be allured by vaporous or even monstrous phantoms.

The sect of scoptsy (castrato) can likewise be looked upon as an outcome of the doctrine of pessimism, though of a widely different kind comparatively to nihilism. The doctrine of their rude fanatical faith, somewhat similar in its steadfastness to obtrusive ideas, in its ultimate consequence leads towards the extirpation of mankind. While on the one hand nihilism can be likened to a tempestuous river running its course through the soil and carrying in its current beautiful flowers, useful plants, as well as weeds, all caught in the same stream, castration on the other hand resembles turbid, stagnant water, which at times overflows its borders and drowns the neighbouring swamp. Though not a mental affection in the strict sense of the word, nihilism is a psychical factor very liable to devolve into insanity. On the other hand the sect of the scoptsy does not exhibit a tendency towards the development of psychoses, owing to the fact that the annihilation of an important organ and the psychical functions which are connected with this organ, the shunning of moral duties and exigencies, impart to this sect a similitude, to a certain extent, to idiocy, in which state individuals prone to be affected only by cares of their personal physical welfare, are wholly exempt from the higher social interests and wider aims of life, which can never expand in the defective consciousness of such degenerated individuals.

Taking into consideration, therefore, that hereditary propensities, alcoholism, and other unfavourable conditions, form the most important factors which predispose towards mental and nervous morbidness, there arises this question : What are the means by which we can battle with these disastrous phenomena of social life ?

(1) In regard to heredity we must pay particular attention to the harm of marriages between persons who possess a predisposition to mental morbidness, inasmuch as the posterity of such individuals by a fatal propensity, is destined to psychical degeneration. It is a known fact that the marriages most injurious to posterity are those which are contracted between individuals with symptoms of the so-called concentric heredity, when husband and wife are both predisposed to insanity, and that the propensity to mental diseases of one of the

married couple is counterbalanced by the healthy condition of the other exhibiting no signs of degeneration, the influence of the healthy mother being in such cases of more consequence to the posterity than that of the father.

Such are the truths obtained by scientific investigations, and which we should always adhere to and propagate in the bulk of society until they become its appendage. True it is that in questions of marriages, individuals cannot always be guided by prudence, even though they possess a thorough knowledge of the principles brought to light by science. It would be undoubtedly also an utter impossibility to demand the check of such evils by strict legislative or repressive means. Only the development of social self-consciousness and a thorough understanding of social duties, and the responsibility of each individual towards his own conscience, can serve as a faithful and mighty support for the prevention of such evil consequences. No repressive means, but the will of the individual, governed by a knowledge of truth and by consciousness of social duties, can be of any help in such matter.

(2) Measures against alcoholism, being a question pertaining to the community at large, ought to be issued from the Government, as with this question are connected, not only the common interests of social health and moral hygiene, but also other interests indirectly connected with the above.

The principal measures to be taken against alcoholism are those which pertain to the region of legislation, administration and finance; they serve to regulate the sale of alcohol and tend towards restricting, or even forbidding, the sale of alcoholic drinks containing the poisonous ingredients before-mentioned. The practical application of such measures is, undoubtedly, a most difficult one, principally owing to the fact that, in general, healthy alcoholic drinks are at the same time comparatively more expensive ones, and that it is highly improbable that science should ever easily find out cheaper means of distilling spirituous liquors of good quality. Although the possibility of applying the protective laws to the utmost is restricted by a feeling of respect due to the freedom of citizens, as also to the freedom of commerce and industry, still, however, it stands for granted, that sole respect due to these honourable principles ought not to deprive Government of the right, and even the duty, to protect the bulk of unenlightened members of the community from the propagation, through sale, of known poisons. In the small kingdom of Belgium, with its population of five millions, the number of public-houses amounts to 80,000; these last have been recently taxed by a duty amounting to 1,600,000 francs. This sum goes towards the maintenance of a sanitary police, whose duty it is to superintend the sale of liquors of a good quality. The strict legislations of Sweden against the abuse of alcoholic liquors and the control over the quality of various liquors on sale have greatly diminished the propagation of certain kinds of drunkenness in that country.

The measures which ought to be introduced in Russia as a preventative against the propagation of alcoholism, and, consequently, that of insanity brought on by inebriation, can be expressed in the following items :—

(*a*) Perfect freedom ought to be given to the sale of those alcoholic liquors which are less injurious to health, as for instance, beer and grape-wine, but on conditions that such alcoholic liquors should be of good quality and not adulterated.

(*b*) The distillation of brandy obtained from wheat and potatoes ought to undergo a strict inspection ; competition ought to be stimulated between distillers of brandy by rewarding with prizes improvements made in the modes of distilling brandy, the rectifying of it from injurious matter, or the transformation of such matter to a less injurious kind, and the rendering of such brandy, in its qualities, approximate to spirits of wine.

(*c*) To lay a high duty on brandy, and grant the sale of it only to persons whose morality and honesty is known to the administration ; and, lastly,

(*d*) Persons who have given way to intoxication in public places ought to undergo a certain punishment, depriving them for a time of their liberty by placing them in houses specially adapted for drunkards. These last being unable to free themselves from the vice of drunkenness under the usual mode of treatment, should they be allowed to retain their liberty, would infringe public peace and morality.

Having mentioned only some of the measures which serve to diminish the various injurious influences of our social sphere on the manifestation of psychoses, and being unable to discuss these measures more fully, we will limit ourselves only to the remark that material welfare, morality, and also the propagation of those noble yearnings of the mind which serve to elevate the tonus of sensorium, and impart a moral support against temptations in the struggle of existence, should be looked upon as a counterbalance to the above-mentioned oppressive conditions of social life. These noble aims consist in a realization of the ideal conception of true happiness—a conception based on practical philosophy.

There are three conceptions of happiness ; the first of them is commonly founded on the belief in a life of eternal happiness in the world to come, in a life beyond the grave. This is the sole hope of all the afflicted and the sufferers in this life, the sole refuge, pointed out by all religions, and in particular by Christianity, for all misery and unhappiness which no healing balm can allay. The second conception of happiness consists in the yearnings of mankind to profit by life in an ordinary practical sense of the word, in the unrestrained gratification of the senses, in cultivation of the mental faculties, in the studying of science and art, in profiting by that noble disposition of mind which can be attained by the fulfilment of exalted aims, in the love of study, the thirst for gaining power and honours. The third

conception of happiness is the belief in a happy futurity on earth, towards the realization of which each generation conduces with its labour and self-abnegation, the happiness of each separate individual being sacrificed to the welfare and happiness of the coming race. The following words out of Broca's speech in Moscow (1879) may serve to characterize these ideal conceptions: "Prehistoric man, the contemporary of the mammoth and cavern-bear, endowed with two miraculous organs, his brain and his hands, not only conquered these giants by the force of his dexterity and intellect, but became the monarch of the whole universe; what, therefore, ought not we in the future to expect from a contemporaneous generation at its present stage of culture, of science, its perfectioned materials for the investigation of the laws of nature and the subordination of nature to the aims and wishes of our generation!" This ideal scheme of future happiness of mankind wrought out by the unveiling of scientific truths constitutes the philosophy of progress.

The product of these various conceptions of happiness and yearnings towards its grasp is—existence, labour and useful activity. These yearnings after the ideal, ennoble and elevate the mind and serve as a counterbalance to oppressive impressions, imparting to man that moral power and energy which is so essential to support him through the hardships of life in his struggle for existence. This elevation of the tonus of the mind serves at the same time as a mighty shield against the injurious influence of oppressive circumstances, which, acting on the mental organism, weakens the intensity of those influences and thus protects the organism from morbidness. Therefore, the paramount duty of a community is to instil these ideal yearnings in the intellectual faculties of its members, bearing in mind that for the attainment of this aim it is essential to instil these conceptions in the mind of our youth; this solemn responsibility devolves upon our schools, though it is an incontestable fact that a pedagogical training can only be successfully achieved if it acts upon a healthy brain—a brain which is not overworked by the excessive exigencies of our contemporaneous schools.

(*To be continued.*)

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2. *Italian Retrospect.*

By J. R. Gasquet, M.B.

A great part of the activity of Italian psychologists has been devoted during the last two years to the study of hypnotism. It may be generally remarked that their results have been rather confirmatory of what was previously known than in discovering new phenomena, though some of importance will presently be mentioned.

The following are the principal articles in the "Archivio":—Drs. Capelli and Brugia have made a very careful study of the effects of various drugs on the general and intracranial circulation, of which the

following are the chief results: Amyl nitrite acts more rapidly and decidedly upon the vessels in the skull than on those of the forearm. The sphygmographic curves oscillate considerably, apparently from local causes, since they do not vary at the same time in different parts of the body. Chloral acts more speedily and markedly on the peripheral than on the cranial vessels, so that at first there is cerebral anæmia by diversion of the blood to the surface; but when the hypnotic effects of the drug begin the cranial vessels also become dilated, and this continues until sleep ceases, when it is again followed by temporary anæmia. Paraldehyde slowly diminishes the force of the heart, its maximum effect being reached when hypnosis is most profound. Its action on the peripheral circulation is less marked, but it produces paresis of the vessels, and consequent hyperæmia, whenever sleep is produced. On the cerebral circulation, on the contrary, little or no effect can be observed beyond that due to diminished cardiac propulsion. Hyoscyamine at first causes increased action of the heart and vascular tonus, both of which fall below the normal in about twenty minutes, the pulse becoming at the same time notably more frequent. Their experiments with warm baths differ from those obtained by others in this, that they find no evidence of an early stage of venous cerebral hyperæmia, but gradual anæmia from the first in almost all cases.

Dr. Rezzonico continues the researches of the school of Pavia into the histology of the nervous system by an account of the sheath of Schwann, which he believes to be a layer of fine connective tissue derived from the deep surface of the meninges, and applied to the roots of the spinal nerves as they pass through the pia mater.

Urethane has been tried fully as a hypnotic in the Ferrara Asylum, and the results recorded by Dr. Sighicelli. It proved uncertain in all the forms of insanity in which it was tried, even in melancholia and dementia, where others have been more successful. Respiration was found to be shallower and slower, though not affected in frequency; on the other hand, the heart acted more powerfully and quickly.

The same author gives the clinical history of four cases of low temperature in insanity, with a very full bibliography of the subject. His conclusion is that in all cases of low temperatures coarse brain-disease will be found after death, but that such lesions are of such diverse nature and seat that it is at present impossible to explain the phenomenon. His most striking instance is that of a woman in a state of secondary dementia. The temperature fell rapidly in the last week of life, and for the last three days did not rise above 28·6 c., falling just before death to 24·4, in spite of artificial warmth.

Prof. Raggi describes a case of acute melancholia in which what he terms "psychical contrast" was a prominent feature. What this is will be best understood by examples. The woman in question was always afraid of ill-treatment, yet she was continually committing acts of mischief and insubordination to justify the punishment she feared.

Similar cases are recorded where persons of religious and strict moral principles have broken out into blasphemy or obscenity from the mere dread they had of doing so. This is connected with like conditions in persons of sound mind (such as the tendency to laugh often experienced in moments of peculiar gravity or solemnity); also with similar contrasts observed by Féré and Binet when a hypnotized subject has suggestions made to him, and is then placed under the influence of a magnet.

A good instance of "folie à quatre" is described by Funaioli in a family consisting of an aged mother with one daughter and three sons, agricultural labourers, uneducated, and insufficiently fed. The daughter began by attributing gastric pain from which she suffered to poison and witchcraft, and this delusion was taken up by her brothers (all older than herself), and, the sister becoming maniacal, they finally threatened the lives of those whom they supposed to have produced their sister's condition. On being placed in the asylum and separated the brothers rapidly recovered, but the sister remained in a maniacal condition, refusing food and failing in bodily health.

The longest article in the "Archivio" is by Dr. Brugia on hypnotism, which runs over three numbers of the journal, and appears to be an excellent summary of what is known on the subject. The critical portion of the paper is mainly devoted to refuting Tamburini's and Seppilli's law that the several phases of hypnotism (lethargy, catalepsy, somnambulism) are due to a simply progressive increase of cerebro-spinal excitability produced by increasing the duration and intensity of the stimulus. The author has no difficulty in showing that this hypothesis is inconsistent with many of the facts, in particular with Dumontpallier's proof that the stimulus which produces any one of these states can also bring it to an end. The effect of hypnotism on the respiratory and circulatory functions is studied by graphic tracings. Respiration is not uniformly affected, but in one subject it was several times found to become exceedingly shallow during catalepsy, with an occasional very deep inspiration. The pulse likewise varies, but Brugia considers it always gives evidence of lessened vascular tonus. During lethargy the sphygmographic line rises; during catalepsy and somnambulism it falls progressively. During the last stage he has frequently been able to slacken the pulse by suggestion, but never to accelerate it.

The "Rivista Sperimentale" continues to maintain its high standard of excellence in previous years. Seppilli publishes a remarkable case in which during life the chief symptoms were hemiatrophy of the left side of the body, and frequent Jacksonian epilepsy, beginning in the left upper limb and spreading to the whole side. There was incomplete loss of sensation and motion in the same side. After the disease had lasted for eighteen years the patient died, and on post-mortem examination it was found that the whole of the motor cortical region of the right hemisphere was softened and completely disinte-

grated, the destruction extending as far inwards as the upper and external walls of the lateral ventricle. The author's explanation is that the basal ganglia share the motor functions of the cerebral cortex, and when this is destroyed may incompletely supply its place.

Tanzi and Riva conclude their study of paranoia, which was noticed at length in the last Retrospect, by replying to criticisms which have been addressed to them. They explain that they fully admit the existence of paranoia without delirium, that is, of hereditary "mattoidi" (the word is so good as to be worth quoting)—the indefatigable grumblers, letter-writers, and crazy persons who often afterwards develop positive insanity. On the other hand, they also hold that paranoia is not the only condition in which systematic delusions of chronic insanity can be built up, though it is the most frequent one. Little, therefore, seems to be left beyond the "atavic" character of the insanity to justify the existence of paranoia as a general term, and the most interesting part of their work is that in which they point out that the delusions and acts of chronic lunatics are so constantly reversions to earlier conditions of the human race. Delusions of persecution, belief in alchemy, in impossible influences of magnetism or electricity were compatible with normal intelligence, even of a very high order, some centuries ago, their anachronism being their true morbid character. A subsequent article by Dr. Tonnini modifies appreciably this view. He lays stress on what Krafft-Ebing had already summarily remarked, that the group of symptoms thus termed may be completely developed under the influence of various grave diseases of infancy or from injury, sometimes as the result of an attack of ordinary insanity, and he argues from this that the changes which have taken several generations to produce in the hereditary lunatic may be brought about in one person. There remains, therefore, nothing characteristic of paranoia but the combination of insanity with mental degeneration. I have dwelt upon the subject at some length, partly because it seems to engage specially the attention of our *confrères* in Italy, but still more because we seem here to have got to the real interest of the question. We should probably all of us be somewhat impatient of a discussion over schemes of classification, but it would be very interesting to know whether Tonnini's statement can be verified, and to see if the evolution of chronic insanity in an individual with no hereditary antecedents follows the same course and ultimately assumes the same form as in other instances is the work of several generations.

Dr. Petrazzani relates two cases of obstinate hysterical paralyses cured at once by suggestion during hypnotism. He enters at length into the mechanism of suggestion, in which I need not follow him, but the practical value of the point is obvious.

Dr. Seppilli has continued in the asylum at Imola the experiments I have formerly referred to on the composition of the blood in the insane. He now gives the results of his examination of the blood of

200 patients (104 males, 96 females). The points investigated were the proportion of red corpuscles (by Hayem's method) and the amount of hæmoglobin, as estimated by Bizzozero's chromocytometer. The chief result is that the red discs are less in number, and the hæmoglobin diminished in amount in a large number of cases of insanity in their early stages, more frequently and more markedly in women than in men. This, as he notes, confirms the conclusions at which Dr. Rutherford Macphail arrived in his prize Essay.

Dr. Bernardini relates the case of an incomplete idiot in the asylum of Reggio, whose head was large and globular, suggesting hydrocephalus, but the patient dying at the age of 21 it was found to be one of the much rarer cases of cerebral hypertrophy. The encephalon weighed 1,755 grammes, the sulci in the convolutions were unusually deep, the basal ganglia and cerebellum very large. Histologically examined, the neuroglia was found considerably increased in volume, the elements of which it was made up being also increased in size. The nerve-cells, on the contrary, were diminished in number and size, and their protoplasm in great part replaced by pigmented or fatty granules. The vessels had undergone fatty degeneration, the perivascular spaces were dilated and full of leucocytes. All these appearances were most marked in the convolutions, and became gradually less towards the cord.

The following are the chief points of interest in Lombroso's "Archivio." Dr. Mingazzini reports the cranial anomalies of 75 insane persons as compared with others. The general conclusions are:—The pterygoid processes of the sphenoid bone are notably wider than in the sane, the glabella and supraciliary ridges are more prominent, the frontal sinuses are more often either very large or almost absent. Synostosis of the cranial bones occurs earlier and is more marked in the insane, especially in epileptics. Dr. Busdraghi examines a large number of cases of theft by the insane, the chief results being the great proportion of hysterical women, and the frequency with which theft was committed with great skill, or ingeniously excused afterwards. There is an interesting account of the criminal asylum recently opened at Montelupo, between Florence and Pisa. It is constructed to receive 52 persons in process of trial, and 200 after sentence. At the time it was visited there were six in the former and 90 in the latter division. There are eighteen warders and eight infirmarians. A sufficiency of outdoor work seems provided, and the chief difficulties appear to be due to the warders, who are not accustomed to the care of the insane and the subordination of the medical superintendent to the legal authorities.

We have received for notice two works which lie rather outside our province. Signor de Bella has published "Prolegomena of Elementary Philosophy," in which he gives a very brief but lucid sketch of cosmology, logic, psychology, and ethics from an eclectic point of view, but taking into account the progress of science.

Dr. Panizza sends us the third edition of his work on the "Physiology of the Nervous System and Psychical Actions," which I have noticed in a former number of this Journal. He has collected a large number of objections to the received doctrine of transmission of sensory impressions and motor impulses by the nerves, for which he would substitute a conception for the whole nervous system like that which Brown-Séquard advocates for the encephalon.

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Quarterly Meeting of the Medico-Psychological Association was held at Bethlem Hospital on Friday, the 24th February, 1888, at 4 p.m. The chair was occupied by Dr. Needham, and among others present were Drs. A. J. Alliott, S. H. Agar, R. Baker, G. F. Blandford, Fletcher Beach, D. Bower, C. S. W. Cobbold, H. Chapman, H. Case, P. E. Campbell, T. J. Compton, P. M. Deas, W. Eager, L. Francis, W. Habgood, H. G. Hill, J. Hughlings Jackson, S. E. Lisle, J. M. Lindsay, H. Maudsley, J. M. Moody, W. J. Mickle, P. W. MacDonald, H. C. MacBryan, J. T. E. Mortimer, A. MacLean, H. Hayes Newington, D. Nicholson, A. S. Newington, S. R. Philipps, W. H. Platt, J. H. Paul, H. Rayner, G. H. Savage, H. Sutherland, R. L. Rutherford, H. R. Sankey, J. B. Spence, S. A. K. Strahan, E. Toller, F. W. Thurnam, Hack Tuke, T. S. Tuke, E. B. Whitcombe, T. O. Wood, F. J. Wright, &c.

The following gentlemen were elected members of the Association:—John A. Cones, M.R.C.S., Burgess Hill, Sussex; Magnus V. Manson, B.A., L.R.C.P. and M.R.C.S., Haywards Heath Asylum.

Dr. SAVAGE exhibited a carcinomatous brain of a patient supposed to be a general paralytic, explaining that Dr. Percy Smith, who had prepared a paper, was unfortunately prevented from being present. (See "Clinical Notes and Cases.")

Dr. HUGHLINGS JACKSON said that the paper was a consoling one to him, as he had made the same mistake. He should like to know whether there was any alteration in the condition of articulation.

Dr. SAVAGE said there was an alteration distinctly in that direction. There was tremor of the muscles. The handwriting was affected. The reflexes were exaggerated, and her walk was unsteady. The pupils were unequal. She had convulsive seizures. There was no optic neuritis. At one time there was a certain amount of exaltation as to her own powers. Dr. Hack Tuke had seen the case many times, and would concur in what he said.

Dr. HUGHLINGS JACKSON read a paper "On Post-Epileptic States."

The PRESIDENT said that a study of such complexity and elaborateness as was contained in the paper just read was calculated almost to take away one's power of expression if not power of thought. He must profess himself quite incapable of offering criticism upon the paper; but this did not preclude him from saying with what interest he had listened to it, and how gratified he was that Dr. Hughlings Jackson had consented to read it.

Dr. SAVAGE said that in offering a few remarks upon the subject he felt like a Curtius, and feared that he might lose himself in the gap. With regard to the subject of Dr. Jackson's paper, one felt that it was so much part of himself that

it was never tiring to meet the question again and again from fresh aspects. The whole subject of loss of control in its different degrees, the effects, as it were, of the truncation of intellect in degrees—had been thought out and elaborated by Dr. Hughlings Jackson very carefully. One thing he would say was the extreme difficulty which they experienced in persuading those who were not connected with the treatment of the insane that there could be such highly organized actions performed by persons who were more or less unconscious. It was not necessary to have complete unconsciousness with complete epilepsy. There was a patient at Bethlem who had a very good imitation of a fit of general paralysis. He was convulsed in every muscle, and was in such a state that the attendant, referring to his dropping his pipe, which he was very fond of, said, "Poor So-and-so will not enjoy his pipes any more." One of the first signs of returning consciousness was his saying that John Stephenson hoped he would enjoy his pipes. Then there was a lady who professed to be unconscious, and yet performed the most elaborate acts, such as stealing jewellery, &c. Probably Dr. Jackson would agree that it was quite possible that a person might perform the most elaborate and cunning acts, and that those acts might repeat themselves, and yet each of those acts might have been completely unconscious. He did not know whether Dr. Hughlings Jackson had seen a recent American article on the use of anæsthetics in what might be called the clearing-up of insanity—a kind of removing of the covering of self-control and seeing what was underneath, effected by putting the patient under the influence of nitrous oxide. It would be interesting to compare the gradual truncation of intellect by anæsthetics with similar effects produced by epilepsy.

Dr. NICOLSON said that, speaking from the point of view with which he was most concerned, viz., the question of responsibility for crime, he could not but think that the great outcry against lunatic asylums and the late difficulties in regard to certification of patients would end in another Broadmoor Asylum having to be built. The number of cases of so-called criminal insanity, which ought to have been at first taken in hand by medical men in attendance, was on the increase, and it could not be said that the medical profession were to blame for this. For years past the medical profession had been more and more prepared to work out what insanity consisted of in relation to a man's capacity to earn his livelihood and live respectably, and they had been successful in so far as introducing the question to the public mind ; but the sooner the question was dealt with by responsible officers the better. The difficulty arose on the point of actually getting mentally-diseased fellow-creatures away from their homes and into asylums without the result that such and such a person would be able to bring an action for damages. That was the point which touched practitioners in the country and in small towns where they felt they were, perhaps, not so cognizant with the outs and ins of insanity as to make them take the responsibility upon themselves of sending a patient to an asylum away from his work or home, and that caused a tendency to tide over events and say, "Well, I will come in the next day and see how things are getting on," the next thing heard, perhaps, being that the patient had committed a criminal act which made the public shudder. Thus many crimes of a grave sort were committed which could not but be regarded as preventible crimes. He had brought with him a newspaper report of the trial of an epileptic lad who shot his sister, and had just been received into Broadmoor Asylum. It contained the following paragraphs, viz.:—"Mr. Bucknill suggested that the opinion of a medical man regarding a prisoner's state of mind now might assist the jury in concluding as to his state of mind when the act was committed.—His Lordship (Mr. Justice Field): 'I shall rule clearly not. The jury see what his conduct and appearance are and have been. I don't see that the opinion of a medical gentleman carries it a bit further he can no more dive into the man's state of mind than I can.'" When they met with this as the outcome of things, he thought it was

time to congratulate themselves that they had men like Ferrier and Hughlings Jackson and others to take up the subject and work it out, so as to enable them to speak in a more exact manner than they had previously been able to do as to the physical side of the mental condition. Such a paper as that now under consideration would help experts in courts of law, where they were able to produce actual facts, where the question of mental condition was removed from mere metaphysics, and where they could say that this and that have happened, and that this and that are the result of certain conditions, which their present experience referred to a state of mind connected with disease of the brain. With information of this kind they would be all the better able to make out their case against the very top-lofty dogmas of the law. Of course, there could be little doubt that in an ordinary way a judge would be perfectly able to say that a patient was a lunatic where the insanity expressed itself in outrageous actions; but, in a court of law, the prisoner might represent a sane person pretending to be a lunatic, a really sane person, or a real lunatic, and if a judge could say which of these three the prisoner was, then good-bye to their science. With respect to the questions raised in Dr. Hughlings Jackson's paper, the only difficulty he had was that, so far as his experience went, he would he unwilling to limit the epileptic condition to the moment when, what might be called, the explosion or discharge took place. They must accept the epileptic condition as beginning *prior* to the attack, namely, at the very earliest departure, when the patient got irritable, and gradually working up to the moment when the epileptic fit occurred. And again, after the epileptic fit had gone off, there would be certain conditions due to it which were not epileptic—the post-epileptic states Dr. Jackson had described.

Dr. Hack Tuke had no doubt that Dr. Hughlings Jackson would admit pre-epileptic as well as post-epileptic conditions. He had known a striking instance in which an impulse to commit suicide was the prelude to attacks of epilepsy. Probably the aspect of the question of most practical interest to medical psychologists was the occurrence of attacks of excitement or violence in the place of epileptic fits, attacks marked by their suddenness and by the patient's inability to remember what had happened, in most instances, though he was not prepared to say in all. He had known an epileptic patient volunteer the remark that the effect of an attack of excitement without a fit injured the memory as much as the fit itself. He had seen cases in which there occurred attacks of excitement or murderous violence in persons who had never suffered from epilepsy, but which, he felt certain, were epileptic in their character, even although it was very difficult to prove that the violent acts were automatic and unconsciously performed. M. Garnier, who was the medical head of the Paris infirmary for the insane of the Préfecture de Police, had recently reported the case of a man subject to attacks of hystero-epilepsy, and who removed articles of furniture from a shop opposite his own dwelling, and was evidently quite unconscious of what he had done. When brought before the magistrate he passed into a state of somnambulism, and was eventually discharged on the ground of irresponsibility. The case was rendered more interesting by the fact that the patient was removed to the Hôtel-Dieu, where it was found possible to induce one of the most striking phenomena of artificial somnambulism. He was hypnotized, and became susceptible to suggestions. Thus it was suggested, or rather he was ordered when in this condition, to appropriate the watch-chain of one of the students on the following day, and was then suddenly roused from his sleep. The experiment succeeded, and is only one of a number of similar experiments as to the effects of hypnotic suggestions upon the subject after he is awoke. He would thank Dr. Jackson, in conclusion, for his kindness in bringing this subject before the Association.

Dr. Hughlings Jackson, in reply, said that he had been very much interested in the remarks which his paper had elicited.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

PASS EXAMINATION.*

The following gentlemen having satisfied the Examiners, obtained the Certificate of Efficiency in Psychological Medicine, the examination being held at Bethlem Hospital on the 22nd and 23rd of December, 1887:—

Barker, Alfred James Glanville, M.R.C.S.Eng., Bethlem Royal Hospital, S.E.

Staveley, William Henry Charles, L.R.C.P.Lond., M.R.C.S.Eng., Bethlem Royal Hospital, S.E.

Will, John Kennedy, M.A., M.D.Aberd., Bethnal House, E.

Examiners: Dr. D. HACK TUKE. Dr. G. H. SAVAGE.

SCOTCH EXAMINATION.—DEC., 1887.

PASS EXAMINATION.

The following candidates passed the examination for Certificate of Efficiency in Psychological Medicine held at the Royal Edinburgh Asylum on December 23rd and 24th:—

Collie, Frank Lang, M.B., C.M.Aberd.

Gemmell, William, M.A., M.B., C.M.Edin.

Rowand, Andrew, M.A., M.B., C.M.Edin.

Thorpe, Arnold E., L.R.C.P., L.R.C.S.Edin.

Examiners: JAMES RUTHERFORD, M.D. T. S. CLOUSTON, M.D.

SPECIAL MEETING OF THE ASSOCIATION.

A Special General Meeting of the Medico-Psychological Association was held at Bethlem Hospital at the close of the quarterly meeting, February 24th, to consider the recent appointment at Haywards Heath Asylum. The President, Dr. Needham, occupied the chair.—Letters expressing great indignation were read from Drs. Clouston, Yellowlees, Brushfield, and others, and a petition, numerously signed by assistant medical officers, was read by Dr. Rayner protesting against the appointment. It was as follows:—

TO THE PRESIDENT, COUNCIL, AND MEMBERS OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

GENTLEMEN,—We, the undersigned Assistant Physicians of English County and Borough Asylums, beg respectfully to direct the attention of the President, Council, and members of the Medico-Psychological Association to the recent appointment of Medical Superintendent to the Sussex County Asylum at Haywards Heath, and to the effects such an appointment is likely to have (1) on the future prospects of assistant physicians in asylums, and (2) on the administration of asylums apart from the general medical treatment of the insane.

We understand that the gentleman who has received the appointment of Medical Superintendent to Haywards Heath Asylum does not possess any practical knowledge of insanity such as should be obtained by a residence in an asylum, nor can he have had any experience in the duties of the administrative head of a large institution. Further, we understand that use was made, by testimonials and otherwise, of the influence possessed by the Lord Chancellor's Medical Visitors, who happened to be acquainted with the successful candidate, to assist his candidature among the several members of the Committee of Visitors to the asylum.

We, who devote the best portion of our lives to the study of insanity and to the management of asylums, many of us with most unremunerative incomes, in the hope of future promotion, naturally feel that the above appointment has been a miscarriage of justice, and we respectfully call your attention to the unfairness of the appointment, trusting that the Medico-Psychological Association, through its Parliamentary Committee, will direct the attention of the House of Commons (1) to the appointment itself, and (2) to the unwarranted interference of the Lord Chancellor's Medical Visitors in such appointments, in order that such a thing may not occur again.

After a number of resolutions had been put to the meeting and discussed, it was ultimately decided that the Association should adopt the following:—

I.—That this Association is of opinion that it is highly desirable that medical superintendents of asylums should have spent, before their appointment, some time as resident medical officers in asylums, or in the study of mental diseases in these institutions.

* The next examinations will be held in July. For particulars apply to Dr. Rayner, Hanwell; Dr. Urquhart, Perth; and Dr. Conolly Norman, Richmond Asylum, Dublin.

II.—That the qualifications in medicine and surgery required for the medical superintendent of an asylum should not be such as to preclude the application of a large proportion of suitable medical men engaged in the department of mental medicine.

The following information has been forwarded to us by Dr. Murray Lindsay, as having an important bearing upon the existing rule of the Sussex County Asylum in regard to the qualifications of the medical superintendent.

"According to the 'Medical Directory for this year, it appears that—

"1. Out of a total of 54 superintendents in 52 county asylums, only nine (or 16·6 per cent.) are medically qualified and eligible according to the Sussex rule.

"2. Out of a total of 12 borough asylum superintendents, only three (25 per cent.) are medically qualified and eligible.

"3. Only twelve out of a total of 66 (about 20 per cent.) superintendents of county and borough asylums are medically qualified and eligible.

"The following are the twelve asylums whose superintendents are qualified, and so far eligible, by being 'a doctor of medicine of a university in the United Kingdom, and a Fellow, or Member, or Licentiate of the College of Physicians in London, Edinburgh, or Dublin, qualified to practise as a physician, and duly registered,' viz.:—

County Asylums.

1. Derby.
2. Devon.
3. Lancaster.
4. Rainhill.
5. Whittingham.
6. Hanwell (Male Department).
7. Banstead.
8. Surrey, Wandsworth.
9. Sussex.

Borough Asylums.

1. Bristol.
2. Exeter.
3. Ipswich.

"The remarkable fact of so few superintendents being eligible for Sussex, added to the other facts I previously stated, viz., that the three Senior Medical Commissioners in Lunacy for England, Scotland, and Ireland, one of the Lord Chancellor's Visitors in Lunacy, and half the Council of the Medico-Psychological Association, are all medically unqualified and ineligible for the post of Superintendent of the Sussex County Asylum, ought to be sufficient to ensure the alteration and abolition of this objectionable and unreasonable Sussex rule.

"If so few superintendents are medically qualified for the Sussex Asylum, it is more than probable that this unreasonable rule has told more heavily against Assistant Medical Officers by excluding even a larger proportion of the latter from being eligible to apply for the post of superintendent of this Asylum.

"The question may fairly be asked—What is the object of the said rule? It surely cannot be for the purpose of excluding, at least, upwards of four-fifths of the resident medical officers in English and Welsh county and borough asylums; but such is its effect. Such exclusion and the selection of an inexperienced outsider cannot properly be defended, for there is abundance of excellent, well-trained and experienced medical officers in asylums who are well fitted for promotion.

"An analysis of Churchill's Medical Directory will show that 38 per cent. of English county asylum superintendents and 25 per cent. of borough asylum superintendents have gained honours and distinctions during their student's career or subsequently. It is questionable whether an equal proportion of medical men engaged in the public services (as Medical Officers of Health, Poor Law, Army, and Navy Medical Officers) can show a better or even as favourable a record."

SCOTTISH MEETING.

The Quarterly Meeting of the Scottish branch of the Medico-Psychological Association was held in the Hall of the Faculty of Physicians and Surgeons of Glasgow, on Thursday, the 8th March. Drs. Blair, Campbell, Clark, Clouston, Ireland, Keay, McPherson, Robertson, Rutherford, Turnbull, Watson, and Yellowlees attended.

Dr. Watson was called to the chair.

Dr. Campbell, who acted as Secretary in the absence of Dr. Urquhart, through illness, read the minutes of the last meeting of the Association, after which the Chairman called upon Dr. Yellowlees to give a brief account of his impressions of American asylums.

Dr. Yellowlees related his impressions of some American asylums he had visited in the autumn of last year, noticing briefly the salient features of each. His survey included six State asylums—those at Washington, Willard, Buffalo, Toronto, Worcester, and Middletown—and four asylums for private patients—the Pennsylvania Hospital for the Insane at Philadelphia, the Retreat at Hartford, the McLean Asylum at Boston, and Bloomingdale Asylum, New York. He saw very little restraint or seclusion, though either would be used at once if deemed really needful. The value of open-air exercise in excitement seemed to be understood, but was probably less used than with us, partly, perhaps, because of the climate, and partly because excited cases seemed to have less freedom, or, rather, seemed to be surrounded with more safeguards, than in our asylums. Seclusion was not regarded with the feeling of iniquity which the formal recording of it in an official book had tended to create in this country. There was no temptation to expose a patient to dangerous struggles with attendants rather than seclude him, or to pretend that he was merely in bed when in reality he was in seclusion. The provision for chronic State-supported patients at Willard and at Middletown were specially noticed. Both were excellent, but both were too costly. Dr. Yellowlees commented on the elaborate arrangements for heating and ventilating, which the extremes of climate necessitated, on the very high cost of maintenance in the State asylums, on the excellence of the provision for private patients, and on the very large medical staff attached to all the institutions as compared with asylums of like size in our own land. He had formed a very favourable impression of the asylums he had visited. He found that a good asylum had the same features and characteristics in both countries, and that in their general views of asylum management and asylum treatment the best men of both countries were essentially agreed. Dr. Yellowlees expressed the great pleasure which his visit had afforded him, and warmly testified to the extreme kindness and cordiality with which he had been everywhere received.

Dr. Clark remarked that Dr. Yellowlees had evidently gone into the matter in a most thorough manner. He himself had not had the pleasure of making the same thorough inspection of Dr. Godding's asylum that Dr. Yellowlees had, because he had gone accompanied by a mixed party, and in consequence was treated rather as an outsider. One thing which he had noticed had been a matter of very great interest to him, and that was the beautiful and unique manner in which the floors were kept. He found that they did not use wax and turpentine as we do. They oiled the floor, and put on a skin of thin shellac and varnished it. Instead of scrubbing, they simply wet the floor with a brush, and occasionally gave it a polish, such a thing, indeed, as scrubbing floors not being seen. He thought that a very important matter. He had also noticed that a very singular practice prevailed at Washington asylum of covering the wooden doors with block tin, intended as a fire protection. Another feature was noticeable at this asylum. A large quantity of beautiful flowers were kept, but they were all in cages, so that the patients could not get near them. Generally speaking, everything that could make the life of the invalid enjoyable and comfortable was done, even to the extent of supplying the patients with table napkins, only the most degraded being without them, and every attention was paid to the amenities, internal and external. One thing that helped the internal beauty of the asylum was the rich variety of the woodwork, oak, pitch-pine, maple, and all other kinds of wood being employed to enhance, by diversification, the beauty of the panelling. The democratic formalities of the country struck him very forcibly too. In the course of a conversation with a superintendent of an American asylum he (the superintendent) remarked that it was imperative to address the female attendants as Miss and the males as Mr. There was just a little too much of

that formality, as also a lack of such discipline as we would like. There was one thing, however, Dr. Yellowlees had not remarked, and that was how American asylum superintendents cursed the newspapers. Every little accident that happened got into the newspapers at once, and yet no one knew how it got in. He had also gone further west to the asylum of Cook County. Dr. Spray was now the superintendent there. Politics had had a good deal to do with the changes in that asylum. There he saw several cases of restraint, no less than five patients being tied down. One case was that of a female patient who looked very delicate. To an interrogation the lady medical assistant said, "Oh, she has got heart disease, and we want to keep her in the horizontal position." Dr. Clark, however, pointed out that the patient was not in the horizontal position, but was actually sitting up, the strapping having become loose. Some of the ordinary-sized single rooms had two beds in them, and the proportion of attendants was one to every twenty-five patients. At Chicago the asylum was constructed on the cottage system; the smallest cottage, however, had forty beds, and the largest 150. There was a central administrative block, from which jutted out wings containing 200 patients. The patients do not dine in the cottages, but pass all into one central dining-room. The furniture in American asylums is brighter and of greater variety than in ours. Two of the cottages are on the open door system, all the rest having locked doors. The medical staff in all American asylums is very large, a great deal of the work done being, he thought, purely office work. This strikes Scotch and English practitioners as curious. There are iron stanchions and a framework outside the windows. This we might think wrong, but he had inquired very carefully into the matter. He had met a superintendent who, hailing hence, would, he thought, be disposed to favour the English and Scotch order of things. This gentleman had told him that in his asylum he had done away with these iron stanchions, and found afterwards that the patients did not thank him for it. They said that when the iron stanchions were away they could not get the window open so wide in summer as they would like, whereas, when the stanchions were there the pleasant fresh air current, so necessary in summer time, could be admitted. He had had all the more pleasure in listening to Dr. Yellowlees' paper because he had travelled very much on the same track.

Dr. Yellowlees stated that he had gone through the whole of these asylums, but had not met a single lady medical officer, although he had been told that they were there.

Dr. Clark said that his impression was that they were not liked, but nevertheless they were still appointed.

Dr. Yellowlees remarked that American asylums were very much better than he expected to find them. His impression of them was on the whole very favourable. Some of their men might be ranked along with our best.

Drs. Yellowlees and Clouston both concurred that nothing could have exceeded the uniform cordial and hearty geniality with which they were met on all sides. One felt that the cordiality was quite real.

Dr. Clouston said his American visit had been one of the most pleasant episodes of his life. He had had the high privilege of seeing three Fathers of American psychology, Drs. Ray, Kirkbride, and Pliny Earle. All these men had paved the way for the high philanthropic ideas which now seemed to govern the American system. All were vigorous old men. Certain things impressed him in America. In the first place their ideal of what should be done for the insane was as high as ours. Everything should be done from a medical point of view that could be done. The idea takes a sort of religio-social form. It was the old philanthropic humane idea that originally set up our own Retreat at York. He thought that in our daily work we stood a little risk of losing the central idea—the motive power—that had brought forth asylums and caused them originally to be developed in a new country. He was impressed by this, that they were more afraid of their patients, especially the violent ones. This they showed in their mode of management, in their mode of speaking of them, and in their treatment of them. He was very

much struck by the immense variety and delicacy of the food served out to the inmates. In no hotel either in Edinburgh or Glasgow would greater quantity or better quality be served than the food supplied to the patients there, all fruits in their season—peaches, apples, and grapes—*ad libitum* being supplied.

Dr. Ireland said he noticed a great deal of waste of power and material in these American asylums. Dr. Yellowlees talked of four medical attendants to 170 patients, and, though the proportions were not as high in the other cases, they had all extremely large medical staffs. As far as he could find out, the amount of medical work done was not what one would expect. There was not a great amount of pathological work done. Dr. Yellowlees mentioned that there was a man kept at one of the asylums for examining microscopic sections of the dead body. There was too much attention paid to the dead body. If pathologists would but pay more trouble and attention to the living body, medicine would advance much more rapidly. We put death too strongly to the front. We should study the processes in the living body more, and pay less attention to the dead.

Dr. Robertson was very much interested in the sketch given by Dr. Yellowlees, and also in the observations made. He had visited a good number of American asylums long ago, and as his notes were published, a comparison might be made between the present state of matters and that which existed in 1868. At that time what struck him most was the insufficiency of adequate provision for the insane. There were some good asylums and a few which were not, but, generally speaking, there was a terrible want of provision for the proper care of the insane poor, a large proportion of them being in poor-houses. Things have greatly improved. With regard to the asylums he had visited, he had been struck with the uniformity of their construction. Most of them had a great central corridor, with rooms on each side. In fact, for an ingenious people, such as the Americans undoubtedly are, he was painfully struck with this. They don't adhere to the old plan so strictly now. He was struck with the fact that there was a want of employment. The amusement-element was greatly in excess of the amount of work done. Outdoor occupations are not carried on to the same extent as here. Probably things are very much improved now in that respect. He also observed that the medical staffs were disproportionate to the amount of work required to be done. Dr. Campbell's general impressions corroborated the remarks made by the others. There was less case-taking, fewer clinical observations, and less post-mortem work. He was impressed by the varied diet served to the paupers. Doubtless the comparatively fine and varied dietary in asylums in America was explained by the fact that even labourers there, are accustomed to a much more varied and elaborate diet than the same class at home. The organization of American asylums was, he thought, slightly inferior to that of British asylums, but in a widespread philanthropic desire even among the laity to do the best for the insane, and in the progressive development, they were perhaps superior.

The Chairman expressed indebtedness to Dr. Yellowlees and the other gentlemen who had spoken. The cost of maintenance, 16s. or 18s. a week, exclusive, as Dr. Yellowlees remarked, of medical officers' salaries, was very great, considering that America was a country where many articles—especially food—were cheap. If that occurred in this country, the Parochial Board would find out the reason why such expense was incurred. Dr. Robertson had raised the very important point that there was very little work done in comparison to the amusements.

Dr. Turnbull then read a paper on a "Case of Exophthalmic Goitre and Insanity."

The Chairman, in commenting on the paper read, said that exophthalmic goitre was more frequent in the female than in the male. The pulse did not rise above 120. It did not seem to be very prominently associated with insanity, and so far as he knew was not likely to be fatal. From his having lived in the same house with a case of this kind, he observed that there was great irritability of temper.

Dr. Robertson had been much interested in the case read. A great many years ago he had read a case of exophthalmic goitre at a meeting of this Society. That case was published either in the "Glasgow Medical Journal" or in the "Journal of Mental Science," and was probably prior to the cases reported by Dr. Savage. With regard to the mental features present, he thought in many cases—he happened to have a case at present—irritability was the prevailing feature. The case under his care was in the Royal Infirmary. The symptoms were all well marked, all the three leading symptoms being present—goitre, palpitation, and exophthalmos—but no irritability, the only mental defect being a marked failure of memory. This case differed from those he had seen, and differed as to the kind of mental disorder described by Dr. Turnbull. With regard to the disease itself, it varied very much in its features. Dr. Turnbull, he remarked, had said that only one eye was affected. In almost all the cases he had seen both eyes were affected. In fact, it is quite common for cases of exophthalmic goitre to have one of the leading features left out. It might be the cardiac palpitation or the goitre. There is no doubt that the whole symptoms point to the sympathetic system. Cases have been examined post-mortem where disease had been found in the cervical ganglia, but in other cases no disease was present; still, he would be a bold pathologist who would venture to say that there had been actually no disease, though none was observable post-mortem; but there is a difficulty in reconciling all the symptoms with the theory that the sympathetic system is the seat of disease. Thus, there is palpitation of the heart. That implies undue stimulation of its sympathetic fibres. We have also disease of the thyroid gland and protrusion of the eyeballs. These implied paralysis of their sympathetic nerves. So we have one disease apparently giving rise to symptoms not consistent with each other. But it may be that the fibres going to the heart are really also paralyzed. Then paralysis would cause an excessive flow of blood through the heart, and this increased circulation of blood would act as a stimulant to the muscular fibres of the heart and induce the palpitation which was so commonly present. He thought upon the whole the symptoms clearly pointed to disease of the sympathetic system. With regard to the treatment, good results were sometimes attained by full doses of belladonna.

Dr. Clouston said he would make a remark concerning exophthalmos in its general neurotic relations. In all cases of exophthalmos on examination he had found that the mental affective condition of the patient had been different from what it had been before the disease set in. The patient was in some respects a different person. There was a dulling of the affective processes in some respects, with a tendency to the perversion of the process of volition; so that the patients could scarcely do their daily work constantly and with regularity. They had a tendency to change. They wanted to go about from one place to another, and could not get such a grip of their work as they did before. Dr. Carlyle Johnston said it amounted to a mental disease. In all cases when an analysis of the mental condition of the patient was made and compared carefully with the former state of matters he found that there was a difference. The action and functions of the higher regions of the cerebrum were affected by the disease, not necessarily to the extent of insanity, but in the direction he had pointed out.

Dr. Watson had had a case under his care. Dr. Haydn recommended a constant galvanic current. He had tried it, and found a reduction of the blood-current and a general improvement take place.

Dr. Ireland understood Dr. Robertson had treated some cases with galvanism.

Dr. Robertson said he had tried it in the case he had spoken of. It had the effect of occasionally slowing the heart's action.

Dr. Clouston found that bromide of iron was undoubtedly beneficial.

Dr. Turnbull thanked the meeting for the kind manner in which they had listened to his paper. Exophthalmic goitre was likely to produce mental symptoms as well as ordinary bodily symptoms. It was very clear that the

mental symptoms in the case recorded were part of the disorder, and not a mere coincidence.

The attention of the meeting having been drawn to the recent appointment of a medical superintendent to the Haywards Heath Asylum, in the County of Sussex, a discussion took place thereon, in which a feeling strongly condemnatory of the action of the asylum authorities was expressed.

Dr. Ireland's paper on "Bergen Institution for Idiots" was then read.

The CHAIRMAN having thanked Dr. Ireland in the name of the meeting for the very interesting paper he had given,

Dr. CAMPBELL mentioned that in the absence of Dr. Urquhart (the secretary), and of Drs. Clouston and Yellowlees (who had now left the meeting), he thought it would be impossible to make many arrangements just now regarding the meetings in August. He therefore proposed to the meeting that Drs. Howden, Clouston, Yellowlees, and Urquhart be appointed a Committee to make all arrangements for the Annual Meeting of the Medico-Psychological Association in Edinburgh, with a view also to the Meeting of the British Medical Association in Glasgow in August next.

These gentlemen were duly seconded and appointed as a Committee for this purpose.

The CHAIRMAN made the suggestion that arrangements might be made for the members visiting some of the country districts about Balfron, Aberfoyle, and that neighbourhood, where they would have an opportunity of seeing the system of boarding-out lunatics, very large numbers of lunatics being boarded in private families in these districts. He thought that this would form a very interesting excursion to the members who would be here in August at the British Medical Association's meeting.

Dr. CAMPBELL was quite prepared to carry out the idea, if the meeting were in favour of it.

The CHAIRMAN said that they would try and get the names and addresses of boarded-out lunatics, and perhaps might make a three or four hours' excursion.

The meeting then terminated.

Obituary.

M. FOVILLE.

In our last number we recorded with deep regret the decease of this eminent French alienist. We desire to add the eloquent tribute paid to his memory by M. Motet in the "Annales d'Hygiène et de Médecine Légale":—

Foville dies at 57 in the full maturity of his powers. After he had already to a large extent proved his capacity, the high position to which he had been called gave him constant opportunities of showing his superior qualities. One of the ablest administrators, as well as a most experienced physician, he was one of those whose authority is immediately felt, and whose opinion is received with respect, and when M. Napias rendered homage at his tomb, in the name of the Minister of the Interior, to the Inspector-General of Charitable Institutions and Asylums for the Insane, he could say that Foville had filled his difficult post with honour, high-mindedness, dignity of character, and what is no less important, the good-heartedness which Foville often concealed, but which remained ever active in him.

The son of a physician justly celebrated, whose works upon anatomy and cerebral pathology are safe guides even now in these delicate studies, Foville felt himself drawn to medicine. For other men the paternal heritage might have seemed too heavy to bear; for him it was an example to follow, a renown to endeavour to equal. The successes of the student soon indicated the brilliant future reserved for him. The *interne* of the Paris Hospitals, he had not long to seek his course, and his thesis for the doctorate, "Considérations Physiologiques sur l'accès d'épilepsie" (1857), was the first step in a career which has been traversed with *éclat*. He was Assistant Medical Officer at the asylum

of Quatre-Mares (1859). In 1860 he was Physician-in-Chief of the Maréville Asylum. Then, successively, he became the Medical Director of the Asylum of Dôle (1861), of Châlons-sur-Marne (1863). He became Assistant Physician at Charenton April 21st, 1866, where he found the memory of his father still green, and he resided there six years, esteemed by all, working hard, and obtaining the solid reputation of a first-rate clinical observer. From Charenton he returned to Quatre-Mares, now as the Physician-in-Chief (1872). The Minister of the Interior appointed him, after holding this post for eight years, Inspector-General of Charitable Institutions and Asylums for the Insane (March 18, 1880). This choice was justified by the work Foville performed. The questions regarding Lunacy Legislation and the administration of asylums had specially interested him for long. In 1870 he contributed to the "Annales d'Hygiène" the most complete study of the Law of 1838. On reading these pages again we have found already indicated those modifications, the importance of which experience has demonstrated. Some of them have been introduced into the *projet de loi* voted last year by the Senate. The more active intervention of the magistracy, the administration of property, provisional admission into asylums, the observation of criminals suspected to be insane, &c., all these details were considered with so rare an ability, and so much wisdom and prudent reserve, that the mark of a fair mind and enormous experience may be recognized in every line.

In the same spirit Foville studied the Lunacy Legislation of the United States, and investigated the practical methods of combating drunkenness by comparing the means proposed for this purpose in England, America, and France. As a consequence of holding so important an office, his advice was sought on questions of administration and Government aid. We owe to him numerous reports on the creation of Dispensaries for sick children, on the Hospital for Poor Children in Paris, in collaboration with Lunier, and on the construction and administration of Hospitals similar to those recently erected in England. These questions connected with public institutions especially interested him. At the time when death terminated his labours he was engaged in completing a work entitled "Les Nouvelles Institutions de Bienfaisance." As a part of the same labour and object he published in 1885 a remarkable work upon institutions for the insane in England and Scotland. It is the report of the mission which the Minister of the Interior entrusted to him when the Commission nominated by the Senate decided that the asylums of Great Britain should be visited.* This masterly work exhibited all the qualities of Foville as an observer; his calmness, the moderation which permitted him to exercise a sound judgment upon all that he saw, and, without being critical, to show what our neighbours have been able to effect in a different way from what we have done, sometimes better, without, however, concluding that as a whole we are inferior. Thus his influence was great in this moderate and impartial position where he enunciated opinions, the value of which was felt to be indisputable. Everyone was conscious that if Foville maintained his ideas somewhat tenaciously, it was because they were the result of prolonged meditation. His principles were severe, his rule of conduct unbending. He was never, however, a party man in the sense of being wedded to a foregone conclusion. Accessible to reason, he was as far removed from the spirit of routine as from that of rashness, and he accepted the necessity of progress when it was shown him that it was real, and that under the pretext of improvement, new departures would not throw into disorder that which had been established after long efforts.

In Forensic Medicine and in Medical Psychology Foville was no less distinguished. The "Annales d'Hygiène" have received communications from him of the greatest interest—the "Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques," articles which are really monographs.†

* "La Legislation relative aux Aliénés en Angleterre et en Ecosse." Paris, 1885.

† *e.g.*, "Convulsions" (tome ix.); "Délire, Démence, Dipsomanie" (tome x.); "Folie, Folie à Double Forme, Folie Instinctive et Folie des Actes" (tome xv.); "Kleptomanie" (tome xix.); "Lypémanie, Manie" (tome xxi.); "Paralysie Générale" (tome xxvi).

In the learned societies to which he belonged his remarks were always listened to with attention. No one has forgotten his work upon "Mégalomanie," crowned by the Academy of Medicine.*

Always lucid, always exact, his style reflected his character. Profoundly honest, a man to whom everyone who knew him well was sincerely attached, he had an excellent heart and a rare modesty. All who have worked with him or near him retain a respectful memory of him as a fellow-worker and a regretted colleague, while they address to him their last adieu with a lively and sincere emotion.

DR. JOHN MILLAR.

Since our last number was issued psychological medicine has lost one of its most respected members, John Millar, Medical Superintendent at Bethnal House Asylum, London. He had promised to be present at the annual dinner of the Royal College of Physicians of Edinburgh in December, on the occasion of one of his former assistants, Dr. Peel Ritchie, being elected to fill the Presidential chair of that College, but on account of his susceptibility to attacks of bronchial asthma, he thought it prudent not to undertake the journey at that time. On the 9th of January, although advised to keep indoors, he had to be out on business, and caught a severe cold. That day he went to bed, consolidation of the broncho-pneumonial form developed, and in spite of all that medical skill could do, he gradually got worse, and died on 19th January, having with a mind at rest, ere consciousness was veiled, taken an affectionate farewell of the members of his family. He lies in the quiet churchyard at Shirley.

Dr. Millar's death is mourned by many, for all who knew him intimately could not but appreciate the kindly warmth of a true heart and a genuine nature. He was a man of upright character, who meant what he said. There was no deception about him—straightforward himself, he looked for a like return ; kind and hearty in his welcome to his hospitable home ; generous and good without ostentation, in the true Christian spirit of not letting one hand know the free gift the other had conferred.

As an asylum superintendent he was excellent, combining, as he did, with acute and accurate observation diagnostic skill and prognostic acumen—in fact all the qualities of a successful practitioner—with the business abilities for regulating the management and administration, the furnishing and equipment of a large asylum. His long experience at Bethnal House had given him a familiarity with all the details of asylum life which enabled him to add greatly to the comfort and happiness of his patients, whose welfare and all that could conduce to it were ever foremost in his thoughts. He had great tact in guiding them, and with those capable of forming a judgment he was in high favour.

Dr. Millar was born in Scotland in 1818. He received his professional education at Glasgow University, and in 1838 obtained the license of the College of Surgeons of Edinburgh, and in 1859 was admitted a Licentiate of the College of Physicians there. He was a man of scientific tastes and culture, and although not a contributor directly to the literature of science, he occupied much of his leisure time in microscopic investigations, the results of which he freely communicated to those who were working at the subject investigated. He was particularly interested in the "Spongida," and his researches have contributed to our knowledge of the structure of those animals. One species—"Alectona Millari"—which bores into the shell of the common oyster, has been named after him.

He had no jealousy in his nature, but was ever ready to appreciate the work of others, and always willing to assist them with his advice and practical suggestions in all that related to microscopical inquiry. For more than thirty years he was a Fellow of the Royal Microscopical Society, and for upwards of twenty years a member of Council. He was also one of the Publication Committee,

* "Étude Clinique de la Folie avec Prédominance du Délire des Grandeurs." Paris, 1871.

So earnest was he in his attendance at this Society that Mr. Crisp, in speaking of him at their meeting after his death, remarked that during the last ten years he only recalled two occasions on which he was absent.

Dr. Millar was also a Fellow of the Linnean and Geological Societies, at both of which he was at one period a regular attender; and for many years a member of the Medico-Psychological Association and the Medical Society.

Since 1857 Dr. Millar held the post of Medical Superintendent at Bethnal House, where he had also been as assistant. His first superintendency was at Bucks County Asylum. That asylum was opened under his direction, but after a few years he resigned the position and returned to Bethnal House, Mr. James Phillips, then superintendent there, being in failing health. On his death, towards the close of 1857, the trustees appointed Dr. Millar as his successor.

Under the new management, great structural improvements were soon after commenced, and from time to time continued, and special means adopted for employing many of the male parish patients for whom in a city asylum it is difficult to find suitable occupation.

Dr. Millar unfortunately has left but little record of his views of the pathology or treatment of insanity. He was a great believer in physical nourishment; his dietary was liberal, and especially so during the stages of acute excitement. Employment he encouraged by all the means at his command, and sleep he promoted, the chief drug he employed for many years being a citrated liquor of opium prepared from a formula of his own and a citrated extract of hyoscyamus. He was also in favour of treating excitement by seclusion, regarding it as better that the patient should be removed from external causes of irritation than that there should be a continued struggle between him and his attendants.

Dr. Millar always allowed his patients the fullest measure of liberty consistent with their own safety and that of others, and years before the open-door system was advocated those who could be trusted were permitted to use private keys, but with a constantly changing population in an asylum so close upon the crowded streets, the open-door system was not in his opinion applicable.

Dr Millar had much sympathy with the poor who, after living for years in our large towns without obtaining a settlement, when afflicted with insanity had to be removed from their accustomed surroundings to the county asylum in which they had legal settlement. It was on their behalf he wrote his pamphlet, "A Plea for the Insane Poor." About 25 years ago the subject of the imperfect acquaintance the medical man in general practice had with the forms to be attended to before the admission of patients to asylums led him to publish his "Hints on Insanity," a small but useful work, which has passed through two editions.

Dr. Millar was very ingenious in constructing various appliances about the asylum of a practical character. Of these his tell-tale clock* may be noted for its simplicity and moderate cost, and also his circular cushion water bed, which permits of the removal of pressure from any part of the recumbent body when it is injurious.

We conclude this notice by quoting the words of a letter read at the Microscopical Society, which well records the feeling of most of those who knew the subject of this notice, "Yesterday I stood by the open grave of one of the best friends and truest and most loveable men I have known—John Millar, aged 69."

* [It is to be regretted that this clock has frequently failed to give satisfaction, not from any fault in the principle, but in consequence of bad workmanship. It is to be hoped that this will not be allowed any longer to stand in the way of the general use of so useful and comparatively inexpensive a contrivance.—Eds.]

Correspondence.

THE RECENT APPOINTMENT TO HAYWARDS HEATH ASYLUM.

To the Editors "JOURNAL OF MENTAL SCIENCE."

SIRS,—The above "miscarriage of justice," as it has been aptly termed, appears to me to be a subject presenting many aspects for purposes of discussion. The ratepayers, for instance, may naturally complain if, after a few years' experience of the new medical superintendent to their county asylum, they are asked to provide means to superannuate him, and asylum assistant physicians may feel inclined to protest against their claims having been passed over in favour of an "outsider." It is as an advocate of the assistant medical officers of English county and borough asylums that I beg your attention. The custom in the past has been, with very rare exceptions, to select for the post of medical superintendent a candidate with experience in the medical treatment of the insane, and with a practical knowledge of the no less important duties associated with the administration of a large institution. In the present instance, however, by the appointment of an "outsider," an insult has been inflicted on those men, who, notwithstanding their having completed an apprenticeship in attaining to a requisite knowledge of these duties, have been considered unfit or unworthy to hold the higher post of superintendent.

If such appointments are to be given to "outsiders," what will be our chances of future promotion in the specialty to which we devote the best portion of our lives? and to whom can we appeal for redress if the Medico-Psychological Association fails to use whatever influence it possesses to bring the whole subject before Parliament, so that such misuse of patronage and injustice to our interests may not occur again? It is much to be regretted that, for reasons quite apparent, the Medico-Psychological Association, at a special meeting called to discuss this appointment, did not adopt the suggestion contained in the petition signed by a large majority of all the assistants in English county and borough asylums.*

I am, your obedient servant,

T. DUNCAN GREENLEES.

March 20th, 1888.

Appointments.

CLARK, A. F. C., M.B., C.M., appointed Assistant Medical Officer to the District Asylum, Roxburgh.

FOX, R. G., M.B., C.M.Ed., appointed Junior Assistant Medical Officer to the Sussex County Lunatic Asylum.

GRIFFITHS, T. R., appointed Clinical Assistant, Birmingham Borough Asylum.

JONES, ROBERT, M.D., L.R.C.P., F.R.C.S., appointed Superintendent of the Earlswood Asylum, Redhill, Surrey.

MCDOWALL, JOHN G., M.D.Ed., C.M.Ed., appointed Medical Superintendent of the New Yorkshire Asylum at Menston.

SAUNDERS, C. E., M.D., M.R.C.P., M.R.C.S., appointed Medical Superintendent of the Sussex County Lunatic Asylum.

WHITWELL, J. R., M.B., C.M.Ed., appointed Pathologist to the South Yorkshire Asylum, Wadsley, near Sheffield.

* Sixty-six circulars have been sent out; 47 replies, representing 85 assistant medical officers, have been returned. Of these, 39 asylums, representing 64 assistant medical officers, have signed the petition. Six asylums, representing 10 assistant medical officers, sympathize with the agitation, but for various reasons decline to sign it, and from 16 asylums no replies have been received. I trust that these figures speak for themselves, and are convincing proof, if proof were wanting, that the call on the Association to do justice to the assistant medical officers received extensive support.

THE JOURNAL OF MENTAL SCIENCE.

[*Published by Authority of the Medico-Psychological Association of Great Britain and Ireland.*]

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PART 1.—ORIGINAL ARTICLES.

Remarks on Crime and Criminals. By HENRY MAUDSLEY, M.D.

There is a growing disposition in some quarters to look on every criminal as an unsound person having a special neurosis; to discover diagnostic evidence of the criminal nature in the conformation of the head and face, and in defective structure of brain; and to demand in consequence that criminals should not be punished as responsible, but treated as diseased, beings. It is a tendency against which, in the interests of true psychology, a timely protest may well be made; for its interests cannot in the end be served by pretensions to a knowledge which it is far from possessing and by unwarrantable claims to authority based upon such pretensions. If all criminals are, as the theory postulates, of defective or diseased mental organization, we must needs go on to acknowledge that few, if any, persons are well formed or sound mentally. Every Christian who listens reverently to the reading of the Ten Commandments and prays devoutly that God will incline his heart to keep them, feels, or ought to feel if he be in earnest, that he has in him the potentiality of committing every crime or sin forbidden by them. That he does not commit a particular crime which another person does is not owing always to a stronger and better nature in him, nor to an opportune infusion of prevenient grace, but to the absence of the adequate temptation in the circumstances of his life and calling. Time and the occasion count for much in the production of crime, as in the production of other human events; and it is quite possible that behind the crime of one who succumbs to an overwhelming temptation there may sometimes lie more merit than in the open virtue of another who has never been greatly tempted.

A cursory survey of criminals suffices to show that they fall

at once into two very different classes—the one class comprising what may be called the *occasional* or accidental criminals, the other comprising what may be called the *natural* or essential criminals.

I. The occasional criminal will not present in form, feature, or cerebral structure anything characteristic—anything whatever to distinguish him from persons who have not been convicted of crime. He may be one who was tempted on some occasion of pressing embarrassment to use for his own purposes money entrusted to him, thinking and intending to replace it soon, but, failing to do so and dreading the ruin of exposure, has fallen deeper and deeper into crime in his struggles to conceal his theft; his fellow-clerk in the same office, not a whit more virtuous by nature perhaps, remains honest because he had not the same urgent temptation. Or he may be one who, when exasperated to frenzy by a great and sudden provocation, having at hand the means to do an ill deed, does it and becomes a murderer; while another person, not differently constituted, having no such instant means at hand when inflamed to equal fury by an equal provocation, escapes a similar calamity. In such case a competent microscopist would no more expect to discover in the criminal brain any structural peculiarity than he would expect to discover in any brain the special physical substratum of a passion of jealousy or of a rapture of love. Co-operating to produce crime in every case there are the internal factors of the individual nature and the external factors of his circumstances, and it is obvious that the latter may be so powerful in themselves, or by ill opportune conjunction, as to place in the category of criminals persons who are not constitutionally below the average level of human virtue.

There is without doubt a sort of tacit conspiracy in the social world to believe itself more virtuous than it really is. Men aspire to an ideal of well-doing, and they like to persuade themselves that what they wish for and profess does actually exist. Meanwhile there is a vast difference between the world as it is actually and the world as it is agreed to believe it to be. Were a faithful record of his experiences of human nature made at the end of a long life by one who had known it in its intimacy—by a shrewd and genial medical man, for example, who had been all his life in the intimate confidence of his patients, or by a sagacious and sympathetic Roman Catholic priest who had been the safe receptacle of confessions that are not always made in confessionals—the record would be a mighty

surprise to many persons; they would be amazed to learn what a number of undetected criminals are going about their daily business in the world as respectable, and some as prominent, members of society—perpetrators of petty thefts, of big frauds, of forgery, of perjury, even of murder, in fact, of every offence in the black catalogue of crime. Of these persons some differ not in the quality of their intellectual and moral structure from others who have been convicted; they differ from them only in not having been found out, or, if found out, in not having been prosecuted and convicted.

We ought to take note also, in this connection, of the amount of organized crime that prevails and is sanctioned in different trades and professions as the custom or customs of the particular trade or profession. The crude crimes of our forefathers have, like other social products, undergone special and complex developments with the more varied and complex relations of modern society, presenting themselves in more fine and subtle forms, so that they no longer rudely shock and offend as their coarse and simple originals did: instead of the wrecker who lured the labouring ship on to the rocky coast in order to gain a moderate plunder, we have the wrecker of large commercial enterprises who makes his enormous profits out of the widespread ruin which he deliberately plans and accomplishes; instead of the highwayman who boldly demanded the money or the life of his victim, and who, if caught and convicted, was hanged without more ado, we have the scheming promoter of fraudulent companies, who, gaining an immense fortune by despoiling thousands, is not hanged, but builds himself a palatial residence, perhaps becomes a member of the Legislature, and is regarded with vulgar admiration or envy. The crime of such a one differs not essentially from that of the thief who steals a purse, although it is so differently regarded; wherefore it appears in this as in other regards that it is not what the thing is in itself but what it is in opinion that determines its characterization. So many are the forms and shades of crime and so many the ways that lead to it, that it is impossible to make definite categories which, excluding honest men, shall include all sorts and conditions of criminals, and to discover a characteristic stamp marking them.

II. At the opposite end of the scale to the accidental criminal is the essential criminal: he is one who is criminal by reason of defective mental organization. Most often the defect is of the nature of intellectual and moral weakness which, being irremediable, lands its victim in the class of habitual criminals. Of

this sort are the vagrants who, unable to settle to steady work or unfit to do it, are addicted to petty thefts, to acts of wanton mischief, to arson, and to sexual offences, natural or unnatural; incapable of a great crime requiring precontrivance and plan, they are sometimes used designedly as instruments in their plans by criminals of stronger intellect to whom they look up with deference and respect. By themselves, howevêr, some of them are capable of even doing murder, whether it be in the gratification of a brutal passion, or in imitation of a murder which they have heard or read of, or in a stupidly indifferent and reckless way, without other reason than a strange, sullen, and disquieting feeling in themselves impelling them to its discharge in an act of violence. For I may take occasion to note by the way here that there is a condition intermediate between the quasi-unconscious crime of the epileptic and the motived crime of the passionate and of the deliberate evil-doer; a condition in which a blind, gloomy feeling of painful tension and unrest impels its weak-minded subject to the discharge of it in unreasoning violence, of the motive of which he can give no account or only the lamest account afterwards, or gives, perhaps, when pressed, an untrue account.

Such as they are, we cannot justly say of these somewhat weak-minded vagrants that they have a special criminal neurosis—that is to say, if we are to attach definite meaning to that expression. They are simply persons who, having the organic appetites and animal passions of human nature, lack the developments of reason and moral feeling by which these are surmounted and held in check in rightly constituted persons; and the consequence is that in face of the complex conditions of civilized society they are only able to fulfil their natural instincts by acts that are necessarily anti-social. How, for example, can the sexual appetite obtain other than coarse and brutal gratification in one who is destitute of those qualities of mind through which it obtains its specialized expressions in refinements of feeling and subtle delicacies of behaviour? The sense of moral relations, or so-called moral feeling, and the fine qualities of reason and conduct that are correlate with it, are the latest and highest products of mental evolution; being the least stable, therefore, they are the first to disappear in mental degeneration, which is in the literal sense an *unkinding* or undoing of mind; and when they are stripped off the primitive and more stable passions are exposed—naked and not ashamed, just as they were in the premoral ages of animal and human life on earth. The loss of these highest layers, so

to speak, of mind does not necessarily preclude some intellectual acuteness of a low order; for the weak powers of attention and reflection which these persons possess, being engaged almost exclusively in the narrow sphere of their immediate interests, are sometimes sharpened by continual exercise there to a fine edge of low, fox-like cunning. It is not always in these cases that we find structural defects of brain; sometimes, it is true, an insufficient complexity of convolutions or other defect may be visible; but for the most part the structures involved in the mental deterioration are too fine and complex to enable us yet, with all our modern appliances, to detect and fix the physical defects or derangements of them.

Lack of intellect and lack of moral feeling do not necessarily go along together in defective mental organizations; in some instances the defect seems to be mainly moral, the intellect not being notably affected; it is remarkable, indeed, how complete the absence of moral sense may be while the other powers of mind are little, if at all, below the average. Those who labour under this moral deprivation may perhaps be placed in two classes: either they are born of criminal parents, open or secret, and bred in a criminal atmosphere—grapes not coming from thorns nor figs from thistles either in mansion, shop, or cottage—so that they are, as it were, specially manufactured articles of an a-moral or anti-social type; or they are sprung from families in which insanity, epilepsy, or some nearly allied neuropathy has existed, when they still own an anti-social inheritance, although in this case due to disease. It is of these two classes only, comprising persons born with little or no moral sense, that we can pretend to say that they have a special criminal neurosis; they are instinctive criminals because the gratification of their urgent and absorbing self-regarding instincts is not, and cannot be, checked by any sense of duty to others, of which they are congenitally destitute and constitutionally incapable.

III. A third very distinct group of offenders against the criminal law comprises those who break it while labouring under positive disease. To this class belong such law-breakers as the general paralytic who commits thefts or other offences; the epileptic who does homicide while in the strange state of abnormal consciousness that follows or precedes his fits; the maniac and the melancholic patients who sacrifice the lives of others under the sway of overpowering delusions; the morally insane person who, having undergone an entire change of character after an attack of insanity or of paralysis, shows

himself as depraved as he was formerly decent in his conduct. These and others of like morbid kinds constitute a distinct class in which the so-called crime is properly the accident of the disease; of whom, indeed, it might be said that it is not so much they who do wrong as that they are wronged by disease.

> If Hamlet from himself be ta'en away,
> And when he's not himself does wrong Laertes,
> Then Hamlet does it not, Hamlet denies it.
> Who does it, then? His madness: if't be so,
> Hamlet is of the faction that is wronged;
> His madness is poor Hamlet's enemy.

Of the three leading groups of criminals thus outlined the last has fairly distinct boundaries, but the two first obviously are not separated by any line of division. Although they stand a long way apart, they are connected by intermediate instances which make a gradation from the one to the other. It is certain that all sorts of intellectual capacity and all degrees of moral feeling are met with among men, and that their relative proportions in different persons are not constant, some having great intellects with little moral feeling, others large moral feeling with moderate intellect. Great, then, is the scope for the possible action of circumstances in determining the outcome; it may depend, indeed, more on them than on the nature of the individual whether he becomes a notable criminal or notable in some sphere of respectable labour. The passionate energy of Saul, the persecuting abettor of murderers, when turned into a different channel, becomes the fiery and aggressive zeal of Paul, the Apostle of the Gentiles. Looking to the coarse nature of the first Napoleon, in which gross passions, brutal egoism, and utter moral insensibility were associated with great intellect, daring enterprise, and unbounded ambition, it is not improbable that had he been born in a low sphere and reared in criminal surroundings, he would have been as notorious as a criminal as he was distinguished as a conqueror. Certainly the powers of mind needed and used to devise and execute some of the great robberies and forgeries of these days have been such as, if put with equal zeal to better uses, would have made their possessors successful in whatever they had undertaken—great as merchants, inventors, politicians, lawyers, or the like. It would not be either scientific or sensible to say of such a one that he had a criminal neurosis if he came to a bad end, and had not a criminal neurosis if he came to a good end.

The conclusions which may fairly be drawn from the fore-

going reflections are, first, that there is no general criminal constitution predisposing to and, as it were, excusing crime; second, that there are no theories of criminal anthropology so well-grounded and exact as to justify their introduction into a revised criminal law. Without doubt every crime done under the sun is an event which has come to pass by natural law, and which could not have been otherwise, all the circumstances being exactly as they were. But that is not a sufficient reason why society should not punish crime. The good of society is a larger interest than the good of the individual; and therefore if there must be suffering it is not society which ought to suffer in his interest, but it is he who must suffer in the larger interest of society. The purpose of punishment among civilized people—in this world, at any rate—is not revenge; it is to protect society from the evil deeds of the wrong-doer by penal suppression or restraint of him, and to deter others by the example, and him by the memory, of his sufferings, from wrong-doing. To punish him, therefore, for doing what he could not help doing on one occasion may be a good way of helping him to do differently on the occasion of another similar temptation, the remembrance of what he suffered becoming a new factor in the circumstances and perhaps operating to change the effect. One need not fear to admit this principle lest it should yield sanction to the punishment of insane persons who commit crime, for the punishment of an insane person or an idiot is no benefit to him, who cannot learn by it, while the example of its infliction, so far from serving as a warning to others, is an outrage to social feeling and brings discredit on the administration of justice.

The present aim and the promising path of the scientific study of criminal anthropology would seem to be the close investigation and exact definition, first, of those crimes that are done by persons suffering from positive disease, such as insanity and epilepsy, and secondly, of those forms of defective mental organization which are the results of a bad inheritance. The former have been, and are being, studied clinically in asylums and elsewhere. The latter have not yet been seriously investigated, because the large and important material which exists in prisons has not been made systematic scientific use of. What is required now is full and exact investigation and faithful record of cases of the kind by painstaking and searching inquiries into their hereditary antecedents, their mental and bodily characters, the conditions of their training, and the exact circumstances of their crimes; for it is certain that a collection

of such accurate biographical records would be valuable instances serving to the formation of sound inductions, and thus lay the foundation of such positive knowledge as science might present with confidence for the instruction and use of those who make and administer the criminal laws. The time is come when we ought to use our prisons, as we do our hospitals, not for the care and treatment of their inmates only, but for the advancement of knowledge and the improvement of man's estate. So doing, we may hope to make useful contributions to the building up of an *individual psychology.*

It is the foundation of such individual psychology which seems to be the need of the time. In all departments of psychology, healthy, morbid, and criminal, we must abandon empty generalities and phrases, and apply ourselves to the laborious observation of particulars, if we wish to gather practical fruit. When the son of persons of fair reputation, and occupying a respectable social position, forges his father's name or steals his mother's jewels, the event is not a miracle, and, if surprising, ought not to be accounted anywise inexplicable; it has assuredly had its sufficient cause and has come to pass by the ordinary operation of natural law—is, in fact, a criminal outcome which never could have been without its evil germ in the line of hereditary descent; not necessarily a germ of actual crime there, but such vice of nature, perhaps, as manifested itself in guile, duplicity, cunning, trickiness, treachery, and the like. For here I may fitly call to mind what was said before of the very subtle and specialized developments of the criminal disposition in the complex and special conditions of civilized society. In the course of degeneracy going on through generations these more special and subtle refinements disappear, being of later growth and less stable than the more simple and coarse anti-social impulses, and so it happens that the moral treachery of one generation comes out sometimes in the crude crime of the following generation. The fathers have sown guile, and the children have reaped crime. That is the course of events which we have to trace out and set forth in particular cases if we are to make any progress towards a real criminal psychology. In like manner with regard to morbid psychology we shall make no progress while we stay in generalities. What real information do we get concerning the insanity of a particular person by being told that it is hereditary? Not much more than we should get by being told that he was born when a particular star was in the ascendant in the heavens. What

we must some time do is to endeavour in each case to get an accurate knowledge of the parental characters and parental circumstances, as well as of the exact nature and course of the parental insanity, and to trace out patiently and methodically the evolution of events from generation to generation—to discover and describe the exact life-history of the particular degeneration: a most difficult study, no doubt, but one which might be undertaken in the sure conviction that a single case of the kind, thoroughly well observed and described, would be of more value than ten thousand general observations going no farther than to establish the existence of hereditary influence. To establish such influence is easy enough, but to know its exact nature and how it works in a particular case *hic labor, hoc opus est.* Although a psychology thus based on particulars may seem to be of humble origin, and cannot for a long time to come fail to be of modest proportions, yet there can be little doubt that, once founded, it will grow and eventually displace those barren disquisitions and pretentious speculations which, usurping the name of psychology, have not been, nor ever can be, of the least practical use to mankind either in the breeding of children, or in the guidance of education, or in the conduct of life.

The Neuropathic Diathesis, or the Diathesis of the Degenerate.

By G. T. Revington, M.A., M.D., County Asylum, Prestwich, Lancashire.

(*Concluded from p.* 42.)

I think that the foregoing statistics, and those which follow, together with the large number of cases which I quote, and which connect general paralysis with almost every form of neurotic manifestation, will prove conclusively that neurotic inheritance is a striking feature in the causation of general paralysis. I question whether a distinction between "the cerebral and the insane element" in general paralysis can be maintained. If general paralysis is not a degeneration of the mind-tissue, then the pathology of insanity has no existence, and I would say that the subtle influence for evil, which is transmitted from parents, whose brains are deteriorated by neurotic outbursts, or soaked in alcohol, or wrecked by physiological immorality, tends strongly towards such degeneration. If insanity is, as Dr. Savage says, a

perversion of the ego, then a general paralytic is the insanest of the insane. We know that the children of a melancholic parent, for example, may develop any form of neurosis—in other words, it is not that melancholia or general paralysis, or any other definite disease, is transmitted, but that a certain tendency to deviate from normal development is transmitted. This tendency to deviate is the neurotic diathesis, and the form of its development is determined by collateral circumstances, and a certain series of collateral circumstances determine the development of general paralysis. Perhaps neurotic inheritance may mean in some cases a limited capital of nervous energy, and if this is wasted recklessly the individual breaks down suddenly and pathologically, as we all do slowly and physiologically. I would also point out that considering the number of histories of insanity which owing to ignorance or reticence we do not receive, and considering that we never receive information as to the existence of the slighter neuroses, it is marvellous that we get so high a percentage as 51. Of the 145 general paralytics with a reliable history, 38 had a family history of insanity, 28 a family history of drink, 8 of both, 43 had a personal history of drink, 8 of a previous attack too remote to be considered, at least, according to our present ideas, as part of the disease, and the vast majority had a history of some physiological irregularity which must be considered as conducive to the creation of an acquired neurosis. We may now pass to some further statistics.

Average age at onset in General Paralytics.

With a family history of drink	37·8
With a family history of insanity	38·1
With no hereditary history	40·89

Average duration of disease in General Paralytics.

With a family history of drink	33 months
With a family history of insanity	23 ,,
With no hereditary history	29·8 ,,

It must be remembered that when I speak of cases "with no hereditary history," I mean that the presence of the graver forms of neurotic manifestation in the family is denied by a near relation; as to the slighter forms we cannot expect trustworthy information. I may point out also

that the average duration in non-hereditary cases of general paralysis is not fairly expressed by 29·8 months, as some acute cases which ran their course in six or eight months obscure the result. In these acute cases an acquired neurosis was usually an urgent influence. I regret that I must leave for future study the combination and opposition of the influences of acquired and hereditary neuroses on the duration of the disease, as it would require some years of constant observation to work out the subject thoroughly. There are some cases which point strongly to the theory that while both hereditary and acquired neuroses, if strong, tend to the development of general paralysis at an early age, the tendency of the former is to protract, and of the latter to shorten the duration of the disease, while the above statistics point to the opposite theory. The whole subject needs further study. Contrasting the average ages at onset we find that the figures are 37·8, 38·1, and 40·89, and this estimate is undoubtedly an approximation to the truth, but even here a few anomalous cases obscure the result. If we look at the ages at onset from another point of view, we will see more clearly that the influence of hereditary predisposition tends to the production of general paralysis at an early age. For while the age at onset in general paralytics with a family history of insanity was forty in only one-third of the cases, in those with no heredity it was over forty in four-sevenths. While as showing that an inheritance of a neurosis acquired in the parent by alcoholism, is a less urgent influence in the life of the individual than an inheritance of insanity, we may note that the age at onset was over forty in more than one-half of the general paralytics with a family history of drink. The statistical tables on page 25 will afford corroboration on this point. It is noteworthy that those cases of general paralysis with neurotic inheritance in which the disease occurred at a late age, and which modified the statistics, were the very cases in which an acquired neurosis was absent. In this fact I find a justification for bracketing inherited and acquired neuroses as factors in the production of general paralysis. We may conclude, then, that the influence of family insanity and of family drink tends to the production of general paralysis, and to an early onset, and tends on the whole to increase the rapidity of the disease, and further, that these tendencies are enormously strengthened by the coexistence of an acquired neurosis. We may

also state here that one of the liabilities of the neurotic is the ready production in them of an acquired neurosis—in other words, that excess acts more injuriously in them than in normal individuals, or that less indulgence constitutes excess.

To illustrate further the relationships of general paralysis to the neurotic diathesis, I may point out that besides all forms of insanity we find epilepsy both in the ancestors and offspring of general paralytics. We may note the following remarkable cases of general paralysis:—Case 41, where brother suffers from melancholia and commits suicide; case 98, brother acute mania; case 112, father alcoholic and epileptic, and brother with nervous temperament, brain-fever at twenty, and an attack of insanity, which ends in dementia, at twenty-seven; cases 39 and 104, where both father and son die of general paralysis; case 34, mother and son are general paralytics, and father died of acute mania; case 64, mother of general paralytic became insane and committed suicide, and an uncle was insane; cases 40, 42, 94, and 111, father insane; cases 69, 102, and 107, mother insane; cases 54 and 61, grandfather insane; case 51, paternal uncle suffered from melancholia and committed suicide, maternal uncle was epileptic, one daughter died in infantile convulsions, another inherited a nervous temperament, and has been on two occasions on the border of insanity; case 94, father alcoholic, became insane, son alcoholic and developed general paralysis; case 68, A. S., family history of drink, personal history, drink and irritable temperament, general paralysis at thirty-nine; case 69, mother insane, son neuralgia, severe headaches, and general paralysis; case 38, brother and sister of general paralytic, hydrocephalic; case 103, son of general paralytic hydrocephalic; case 45, father spasmodic asthma and insanity, son general paralytic; case 59, son of general paralytic, an idiot; case 95, uncle and aunt of general paralytic were idiots; case 100, son of general paralytic born deaf and dumb, and many cases where children of general paralytics die in infantile convulsions. Moreover, to show that general paralysis is a disease of degenerating families, in which not only is the thread of life cut abruptly in the parent by the onset of fatal disease, and not only to the offspring come the abhorred shears in the form of infantile convulsions, but in which the power of procreating an average number of children is diminished, let us turn once more to statistics. In sixty-

three general paralytics in whom the number of children was accurately ascertained, I find the average number was $2\frac{1}{2}$. Number of general paralytics:—

With no children	10
With one child	13
With two children	12
With three children	7
With four children	10
With more than four children	11
	63

It is remarkable, too, that even leaving infantile convulsions out of the question, the number of children of general paralytics who die young is very large.

I may briefly quote a few illustrative cases of general paralysis, with hereditary history.

Case 34.—J. R. B., age 38, admitted May, 1886; duration unknown; married, no children; has been a hard drinker. March, 1887, disease makes but slow progress. Father died of acute mania, mother of general paralysis.

Case 44.—R. J. H., age 34, alcoholic; father drank, mother phthisis.

Case 40.—B. C., age 34, married, no children; father died insane.

Case 49.—J. G., age 42, sexual and alcoholic excess; wife had six miscarriages, no other evidence of syphilis. Family history of drink, brother insane.

Case 94.—J. B., age 38, general paralysis of quiet type; alcoholic; father alcoholic, became insane.

Case 96.—W. E., age 37; brothers alcoholic; family said to be a weak-minded nervous stock.

Case 97.—General paralysis of double form. J. H., at W— Asylum in 1883, with an attack of melancholia, recovered in a few months; admitted here February, 1885, with maniacal onset of general paralysis. March, 1887, disease progresses slowly. Uncle died insane.

Case 98.—R. B., age 39, first attack, duration three years; died soon after admission. Brother insane.

Case 102.—General paralysis of double form; acute mania in 1884, recovered rapidly; admitted here May, 1885, melancholic onset of general paralysis. Mother insane.

Case 106.—E. H., age 35, married, one child; first attack, duration eighteen months; admitted August, 1885, died April, 1886. Family history, father and paternal uncle drank, and the latter became insane.

For similar cases of general paralysis in highly neurotic

families see pages 11, 12, 13, 16, 17, 19, 20. I must ask the reader to remember that the cases quoted in this paper are not culled from cases among the admissions of a long period, but are all cases of individuals admitted between January, 1885, and September, 1886. Of course the neurotic manifestations of their relations cover a much longer period.

Section 15.—There are some other laws of the general principle of heredity, and of that division of it called neurotic inheritance, which I might partially illustrate, but I must be content to limit myself to facts, which I hope have been fairly stated. But in conclusion there are a few points which have been suggested by my investigation, and which I gladly leave to abler hands, as I cannot substantiate their claim to be admitted as definite laws.

I have not said anything about phthisis as a factor in the degeneration of families, because in the class from which our patients are taken any chest complaint, or any wasting disease, is put down as "consumption." Besides, there are few families in whom some remote relation, at least, has not suffered from this disease. In spite of this, I have been struck by the number of epileptics who have an immediate family history of phthisis, often in their parents. There are some cases, also, which suggest that a strong family history of phthisis, predisposes first to depressed vital action, and then to insanity, which is of the hypochondriacal or melancholic type. Dr. Clouston has given us a very graphic picture of the influence of individual phthisis on the mental condition, and a strong family history of phthisis acts in the same way, but in a slighter degree. The converse is also true, for there are mental states, such as epilepsy, and melancholia, which predispose to the development of phthisis. Here we see an acquired disease acting on the mental condition in the same way as a tendency, inherited from parents who were the subjects of the same disease, is found to act. The same is true of hereditary and acquired alcoholism. It has always been taught that insanity caused by alcohol is more commonly of the melancholic than of the maniacal type, and similarly I find that in individuals with a family history of drink, melancholia is commoner than mania in the ratio of seven to four, but general paralysis is commoner than either.

Again, remissions in general paralysis are said to be more frequent in hereditary cases. My experience has been too brief to enable me to offer an opinion on this point, but both

the facts I have already collected, and the general tendencies of hereditary predisposition which I have definitely formulated in sections 11 and 12*a*, lead me to believe that on further investigation this hypothesis will prove to be well founded.

There are several cases with a strongly neurotic family history, in which the patients many years previous to admission had suffered from slight paralytic strokes which were transient, and these cases were not like general paralysis in any other respect. Such cases may be coincidences, but they may be one of the links which, I am convinced, will in the future be found to connect so-called functional potentialities with organic realities.

Most observers have been struck by the resemblance of the criminal and the chronic dement in facial aspect, and the debasement of the "human face divine" is a general rule in the two classes. There is a similarity also in their habits and manners, and in the predominance of the animal instincts. The chronic lunatic is, however, the less debased, as he is a mere animal, the other an animal dominated by the lowest characteristics of the human mind. I have no doubt that criminality is a diathesis, and though it has been proved that epilepsy and sense-perversions are more common in criminals than in the sane, yet the relation of criminality to the neurotic diathesis must be held not proven until, as Dr. Savage says, "the test of connection by paternity be applied." It is remarkable that a strongly neurotic inheritance may coexist with refined features and the highest mental powers. History has shown us again and again the truth of Dryden's well-known lines.

Comment on such a contrast is needless, and explanation hopeless at present, unless we are content to say with Dr. Clouston that such cases "vindicate nature's law of compensation in the world."

With regard to spasmodic asthma, I can find no case where it alternated with insanity, but several where it coexisted with mental disorder, without any interaction between the two, except that the mental symptoms were coloured by the bodily disorder.

Locomotor ataxy, which many observers consider a hereditary nervous disease, cannot be connected with the true neuroses. I find true tabes in several cases of general paralysis, and tabetic symptoms are common.

It is a most interesting, and most difficult question to

decide as to which hereditary principles unite and intensify, and which clash and cancel. Everyone will allow that "in the union of family defects," as Dr. Savage well says, "is seen, not an arithmetical, but a geometrical increase of danger," and this is true of all the disorders I have grouped together as forms of the neurotic diathesis. But I want at present to draw attention to the general diatheses (see p. 2), which have been described by Mr. J. Hutchinson. Excluding mere rheumatic pains, I am inclined to believe that true rheumatism, such as Mr. Hutchinson is speaking of, is rare in the insane. I would invite investigation on this point, for it may be that we have here an instance of diatheses which oppose each other. Mr. Hutchinson also speaks of liability to erysipelas as a diathesis, and it must have struck asylum physicians that the rarity of erysipelas, and of erysipelatous inflammations in their patients is very remarkable. Look at the almost inevitable primary union of lacerated wounds which we expect in epileptics, and the same rule holds good in all classes of the insane. I ask whether we may not reasonably assign this peculiarity to the clashing of diatheses, and I would suggest that the point is worth investigation. In this asylum we do not meet with somatic syphilis, and it certainly is common among the classes from which we draw our patients, as is shown by the experience of the general hospitals in the neighbourhood. The ordinary nervous diseases are also rare. These facts are most suggestive, and no doubt many such examples will occur to the experienced. The psoriasis tendency has often been described as being overcome by the development of a neurosis, and in turn reassuming its sway. Surely all these facts suggest that not only are our bodies the battle-fields on which myriads of micro-organisms engage in exterminating conflicts, but that our nervous systems are the scenes of far more terrible death-struggles when diatheses equally inherited, equally strong, and equally eager for development, meet to decide the question of supremacy. Even among the neuroses proper this opposition is seen, and Dr. Savage has pointed out that true hysteria is rare in asylums, and that it, as well as spasmodic asthma, gout, and other diatheses, struggle for supremacy in the life of the individual. The question of diabetes is unsettled. Dr. Savage has pointed out that it is rare in asylums, and I can find no evidence of its existence here.

Summary.—We have seen, then, that an individual may

start a neurosis in his own life, and that whether he breaks down or not, he may transmit liabilities and tendencies to his offspring. We have seen that the neurosis may be weakened or strengthened in the transit, or may skip one generation to appear in the next; that as a rule no special forms are transmitted, but a general tendency to deviate from normal lines, a liability to break down under slight causation. We have seen that the forms of neurotic manifestation alternate in the life of the individual, and in the life-history of the family; and that the form in which the neurotic diathesis expresses itself in any individual is determined, sometimes by the prepotent influence of one or other parent, and sometimes by the circumstances of his environment, and the accidents of his career. We have seen that a slight neurotic inheritance may mean a ready breakdown, and a rapid recovery, and a strong inheritance, a perpetual instability, or an early and complete breakdown; and that when the neurotic diathesis reaches a certain intensity, the extinction of the family results, either by the absence of offspring, or their early death by convulsions, or other disease, or by their early breakdown and mental death. We have seen that the fullest development of acquired neuroses is in general paralysis. And, finally, we have seen that the largest field for useful psychology lies in the hosts of neurotic individuals, who, under proper care, need never transgress the border-line of insanity, and who should marry into healthy families, but only under medical advice. Such are more likely than normal individuals to break the laws of health, and are more likely to suffer from excess, as in them less indulgence constitutes excess. The fact that neurotic histories are comparatively uncommon is accounted for on p. 15, section 4.

Conclusion.—Such, then, are the facts and suggestions which I have thought worth bringing forward, and I can only hope that they will be found to tally with the experience of others. We are only on the threshold of the great temple of mind; we know little of the inner sanctuaries, and nothing of the Holy of Holies, the mystery of the conscious ego. But we surely know enough to understand that certain brains develop on devious lines, and that their owners cannot be made to view the affairs of life as the normal individual will view them. And the more clearly we understand this, the more readily do we get into close sympathy with our cases, the more useful our advice will become, and the more

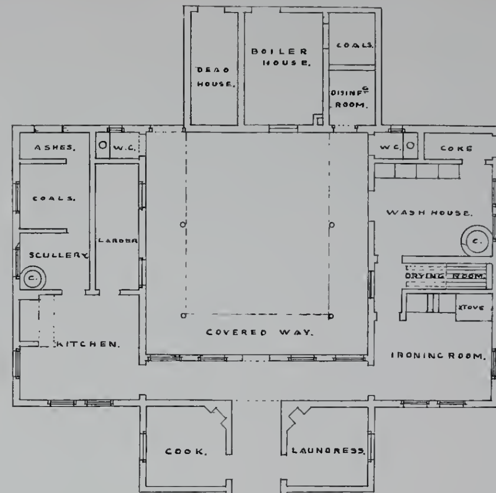
accurately will we be able to foretell what a given individual will do in given circumstances. If we have read the rules of heredity aright, we must recognize the utter futility of attempting by argument or therapeuty to change the nature of the man who says, "I feel thus; I cannot feel otherwise." We must learn that to certain minds impulses may have an irresistible force, either by weakening of the inhibitory power, or by strengthening of the imperative conception (zwangvorstellung). A cut throat may be the result of a psychical reflex of lightning speed, which volition, lumbering up late, is as powerless to check as the most self-contained man is to inhibit the reflex of his eyelids. We must acknowledge that there is a real exaltation of brain function, a buoyancy of being, which we have all felt in the brighter moments of our lives, and such as we may any day experience on a high mountain-top on a glorious summer's morning, or in galloping a spirited horse across country; and on the other hand, that there is real mental pain when the organic functions are uneasy, and the mere progress of life from hour to hour is a torture; cases where the externals, the dress, and the expression, and the habits are as nothing, as Hamlet says—

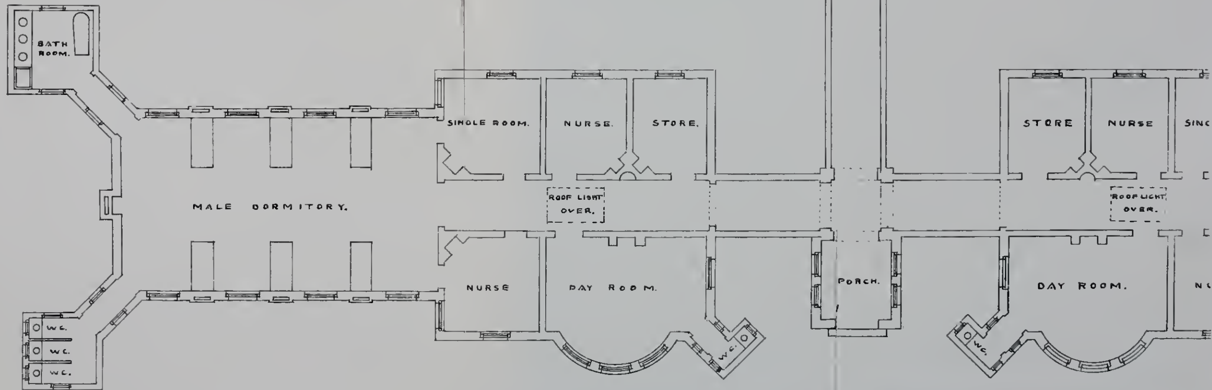
> 'Tis not alone my inky cloak, good mother,
> Nor customary suits of solemn black
> That can denote me truly; these indeed seem,
> For they are actions that a man might play;
> But I have that within which passeth show,
> These but the trappings and the suits of woe.

And the more closely the asylum physician approximates to the standpoint of the brain disordered by disease or inheritance, the more readily will he read his cases, the more will he find himself able to give advice when it is suitable, and to refrain when it is useless. And, finally, he comes to know that this exaltation, these impulses, this depression, this apathy, occur more readily to the neurotic than to others; and that they occur every day in neurotic individuals, who never dream that they are standing on the dim border-land of insanity, and thus forewarned as to the potentialities of these moods to develop into serious disease, and to blot the lives of generations as yet unborn, he is forearmed, and may prevent more insanity than he can ever hope to cure.*

* I have to thank my colleagues for valuable assistance in tracing family histories, and for permission to publish cases.

DETACHED HOSPITAL BERRY WOOD ASYLUM NORTHAMPTON


DEAD HOUSE.
BOILER HOUSE.
COALS.
DISINFT. ROOM.
ASHES.
W.C.
W.C.
COKE
COALS.
LARDER
SCULLERY
WASH HOUSE.
DRYING ROOM.
STOVE
KITCHEN.
COVERED WAY.
IRONING ROOM.
COOK.
LAUNDRESS.


BATH ROOM.
SINGLE ROOM.
NURSE.
STORE.
STORE
NURSE
MALE DORMITORY.
ROOF LIGHT OVER.
ROOF LIGHT OVER.
NURSE
DAY ROOM.
PORCH.
DAY ROOM.
W.C.
W.C.
W.C.
W.C.
W.C.
GROUND PLAN.

Asylum Hospitals, with Plans. By RICHARD GREENE, L.R.C.P., Superintendent of the Berry Wood Asylum, Northampton.

The Commissioners in Lunacy have lately recommended the erection of detached hospitals for the treatment of infectious disease at most of the English County Asylums, and it would seem that at least twenty of these institutions are already equipped in this matter. These hospitals differ greatly as to size, form of construction, adjuncts, distance from the main building, and, in fact, in all their features. Some resemble villas rather than hospitals, others are attached by corridors to the asylum. The most of them are of one story only, but one or two are of two stories. Some are divided into blocks, others are in one continuous building. The causes of this endless variety are, firstly, that there are no model plans of asylum hospitals published, and, as far as I am aware, no plans published at all, if I except that lately built at the East Riding Asylum, described in this Journal for April, 1887 ; and, secondly, that these hospitals being for the most part small affairs, architects are rarely invited to send in plans, so that there is a total absence of the stimulus of competition.

The plans are generally prepared by the County Surveyor, who may, or perhaps more frequently may not, have had previous experience of hospital construction, and who sometimes receives help from the medical superintendent.

The Scotch Lunacy Commissioners exhibit plans of what they look upon as model asylum buildings: but it may be doubted whether much is gained thereby. It may show an architect in which direction he ought to work, and so do good, or it may have a tendency to cramp originality and prevent a careful study of other buildings, and so do harm.

In the following pages I intend throwing out some suggestions for the consideration of those who may be entrusted with the planning of asylum hospitals. Most of these points have been carried out in the one erected in 1886, at the Berry Wood Asylum (ground plan and elevation of which are printed herewith), and of which the Commissioners remark, in their report to the Lord Chancellor, that " it is very suitable for its purpose."

(1). The form of the asylum-estate will usually decide the distance of the hospital from the main building and its relation thereto. Probably about one hundred yards would be found the most convenient distance ; but, where this cannot be got,

very much less would suffice. In one of the old London Small-pox Hospitals the boundary wall was within a few yards of the adjoining houses, and I am assured that the disease was never once known to jump the wall. In nine cases out of ten small-pox is the disease which will have to be treated, as other infectious fevers are but rarely seen in asylum practice.

When possible the hospital should be within sight of the front entrance to the asylum. The superintendent's office is generally in this position, and it is a matter of much importance to have a detached building where it can be commanded from the windows of the medical superintendent's office, whether such building be used for infectious disease, or, as is often the case, for harmless patients when not wanted for its proper purpose.

(2). The size which the hospital ought to be is not a very easy question to settle; but it would seem tolerably certain that it need not bear any close relation to the size of the asylum to which it is to be added. Should the disease be limited to the case first infected, the smallest possible hospital would be enough for isolation of that case, while if the disease spread much, the largest hospital yet built at any asylum, except, perhaps, that at Stafford, would be insufficient to cope with it. This statement is not a reason for unduly limiting the sleeping accommodation, not only because cramped space would prevent the use of the hospital as a cheerful residence for chronic or convalescing lunatics, but also because the administrative department has to be almost if not quite as large for, say, eight cases as it has for double the number. The mere extension of the dormitory does not mean much addition to the cost. For instance, in the plan here given, the accommodation might have been increased fifty per cent. by an expenditure of about twelve per cent. on the whole cost of the hospital.

In the event of the disease spreading the building must be looked on as a centre containing an administrative department and rooms sufficient for the treatment of the first cases—a nucleus around which tents or wooden sheds can be ranged. The latter plan was adopted at the Three Counties Asylum, where the hospital was speedily filled; and also at the Berry Wood Asylum. Here a wooden shed forty-five feet long and sixteen feet wide was commenced on a Friday afternoon and occupied by patients on the following Monday; and, I believe, the additional rooms at the Three Counties Asylum were erected equally as quickly, so that no difficulty need be anticipated in

that direction. But kitchens, bath-rooms, disinfecting-rooms, laundries, boiler-houses and so on cannot be built hurriedly, so that whatever size the dormitories may be the administration department should be completely equipped and large enough to resist any sudden strain to which it may be subjected.

Probably the most usual size is between twelve and eighteen beds. The cubic space per bed considered necessary varies much. In some cases one thousand or twelve hundred feet only are allowed. In others fifteen hundred are given; but it is manifest that nothing short of two thousand should be thought of, and even this allowance is totally insufficient for severe cases of confluent small-pox. Of course much will depend on the construction of the ward and on the system of ventilation.

The dormitories, of which there must be two, one for men and one for women, may be of almost any length, but never less than twenty-two feet wide. In height fourteen feet would be enough, but fifteen would be better. There ought to be one single room on each side. It should be of larger size than ordinary single-bedded rooms, but otherwise constructed similarly. Rooms for two day-nurses and for two night-nurses should be provided, and also suitable accommodation for the kitchen and laundry servants, so that if need be the hospital can be worked independently of the parent institution. It is desirable to have the ward store-rooms of large size in case it should be necessary at any time to find room for extra nurses.

(3). The bath-rooms should adjoin the dormitories, but ventilating passages must separate them from the latter. It is the more necessary to insist on this as one of the most recently constructed asylum hospitals has its bath-rooms opening direct into the dormitories, in which position they not only block out wall space, which should be used for light and air, but permit steam and noise to find their way from the bath-rooms to the dormitories. The w.c. blocks should also have cross-ventilating passages, and they should never open off the main corridor, as in at least two English asylum hospitals.

(4). Although not absolutely necessary small day-rooms are very desirable. They are useful when fever patients begin to leave their beds, or, should the dormitory beds be all filled, they can be fitted up as auxiliary dormitories.

(5). The ordinary double-hung sash windows answer perfectly well provided there are hopper fanlights opening inwards. Without these fanlights there is apt to be a deficiency of cross

ventilation, as it is not always safe to have asylum windows made to open more than five or six inches. In the dormitories the windows must be placed opposite to each other as in hospital pavilions, and each bed should have a window on either side of it. These admit of no exceptions. The windows are best if made longer than usual so that the hopper fanlight may be as close to the ceiling as possible, and the sills not more than two feet three from the floor. Windows at the end of a dormitory always look well, and when the ward exceeds forty feet they should never be omitted.

(6). For the sake of light, cheerfulness, and facility of observation the upper panels of all the doors should be of glass, and it is a good plan to have the lower panels of trellised ironwork, by which means fresh air can be admitted close to the floor line. In very cold weather these panels may be closed by small wooden shutters. Fanlights, hinged or on swivels, are useful over the doors. There ought to be no mouldings on the doors or architraves, and indeed all projections likely to harbour dust should be reduced to a minimum.

(7). The floors are best made of oak, but pitch pine, or even yellow deal would do. In any case it should be thoroughly well-seasoned to prevent the least shrinking. The boards ought to be tongued and grooved, and when being laid a layer of whitelead or thick paint should be placed between their edges so as to completely fill the interstices. The boards should not exceed four inches in width and they should be skew-nailed. If of soft wood they can be made fairly impervious by the application of two or three coats of varnish. The floor line should be well above the ground level, and the latter should be over-laid with four inches of concrete or asphalte.

(8). The inside of the walls, or at least a dado five or six feet high, should be finished in Parian or Portland cement, or, what is perhaps preferable, the dado may be made of glazed bricks laid and pointed with cement. Either of these permits of frequent washing.

(9). In our English climate open fire-places are incomparably the best means of warming, and in a ward fifty or sixty feet long a fire-place at each end will be quite sufficient provided they are properly constructed. The tubular fire-place and the Manchester grate-back are useful means of introducing a considerable amount of warmed fresh air into the room. There is no reason why the passages should not be warmed by slow-combustion stoves, or by coils of steam or hot-water

pipes. The single bedded rooms may be so arranged that they can obtain heat from the corridor stoves. This plan has been adopted in the East Riding Asylum Hospital, and it is perfectly justifiable to utilize such heat for single rooms because open fires cannot always be safely employed in them. It is a less evil than excessive cold. But wherever practicable the open fire-place should be relied on in all parts of a hospital habitually used by patients, because the rays from an open fire resemble those from the sun in passing through the air without appreciably warming it, while enclosed stoves or coils of pipes actually warm the air. Hence when the latter system is in use the patients are compelled to breathe the same air which warms their bodies, a proceeding both unnatural and injurious. Doubtless air may be warmed up to a certain point without perceptible injury to those who inhale it. What that point may be I am not aware, but I am inclined to think it is much lower than is generally supposed. Certain it is that healthy men may breathe air of almost any degree of coldness provided the surface of the body be kept warm by clothing or exercise, and the cool sea breeze brings health and life while the hot air from the desert brings disease and death.*

To warm a building is not difficult, and to ventilate it is not difficult; but to both warm and ventilate it at the same time is not always easy; and the presence of the sick and the insane forms a disturbing element in all calculations concerning temperature and fresh air. In many of the insane the nerve-force is low; consequently they are unusually susceptible of the ill effects of low temperature and of vitiated air. The results of the first are soon apparent, and the second, although more insidious, are not, therefore, less destructive.

Many interesting facts concerning asylum hospitals are to be found in a pamphlet, printed I think for private circulation, by Dr. Sheldon, of Macclesfield. It would seem that the smallest hospital contains six beds, and the largest eighty-five, while the cost varies from £820 to £8,000.

In comparing the cost of different hospitals the mere number of beds is a most fallacious criterion, not only because the cubic space per bed differs so much, but also because the administration departments and the adjuncts are not alike in any two hospitals. Therefore, before any just comparison can be made, it is necessary to know the entire cubical contents and also to have some idea of the specification.

* See Stevenson's work on architecture.

That at Berry Wood cost £2,700, and it cubes out at a little under fourpence per cube.*

It consists of a centre and three blocks. The east block is for men, the west for women, and the north block contains the administration offices. The centre is formed by a porch, ten feet by nine; the connecting corridors, seven feet wide, and at the union of these springs a tower, fifty feet high. This tower is chiefly ornamental, but is useful to some extent as a ventilating shaft, and it contains an alarm bell. It is also fitted up with dials for showing the direction of the wind, and a lightning rod is attached to its highest point.

The east wing can be shut off from the rest by a door having master locks. It contains a store-room, twelve feet by eleven feet three, a single-bedded room, twelve feet by twelve feet, a nurse's room of the same size, a day room, twenty-two feet by twelve, without the bay, and another nurse's room, twelve feet by twelve. The dormitory is forty feet long by twenty-two feet wide, and is fourteen feet high. It is intended for six beds, and provides rather more than two thousand cubic feet per bed. The bath-rooms and w.c. blocks project from the extreme corners of the dormitories. The connecting passages are cross-ventilated, and open louvres in the roofs of bath-rooms and w.c.'s increase the means of ventilation, as also do small gratings on the floor line.

The dormitories are warmed by open fire-places having tubular backs, and similar grates are fitted up in the two rooms adjoining, the warm air being delivered into the dormitories. The rooms are ceilinged as in an ordinary house at the level of the upper edge of the tie-beam, this plan seeming preferable to the other, which is likely to be somewhat cold in winter and warm in summer. The roof space is, however, utilized by four gratings in the ceiling of each dormitory, and a Boyle's extractor is placed in the roof with the object of drawing off the vitiated air. Sun-burners are used for lighting the day-rooms and dormitories, and four-inch pipes connect the burners with the chimney flues.

It should be stated that the piers between the windows are hollow. The fresh air is admitted from the outside by large "hit-and-miss" gratings, and openings in the cornice permit it to fall in a gentle spray in similar manner to that of a Tobin's tube.

* The lowest tender was £2,649, but the extras brought the total up to the sum named.

A dado of glazed bricks surrounds the dormitories, bathrooms, closets, and the passages leading thereto.

The west wing is in all respects a copy of the east.

The north block contains rooms for the laundry-maids, ironing room, drying closet, and wash-house. At the opposite side are the cook's room, kitchen, larder, back kitchen, scullery, and coal place. These form the east and west sides of a square; the south side being formed by the cross-corridor and the north by the disinfecting room, boiler house, and dead house.

Some remarks on the relation of Epilepsy and Crime. By John Baker, M.B., C.M., Assistant Surgeon H.M. Convict Prison, Portsmouth, late Junior Assistant Medical Officer Broadmoor Criminal Lunatic Asylum.

The question of the relation of epilepsy and crime acquired considerable prominence in the early part of the present year in connection with the trial of "Regina v. Hitchins."* The defendant in this trial, the epileptic lad, who fatally shot his sister at Weston-super-Mare, is now an inmate of Broadmoor Asylum. A short time after his admission three other male patients were received who were also the victims of epilepsy; they, too, had committed acts of homicide which had engrossed a considerable share of public attention.

This somewhat unusual influx of epileptic cases arriving within so limited a period of one another, and all guilty of, but irresponsible for the criminal catastrophes with which they were associated, suggested to me that some information regarding the nature of the offences of the epileptic patients, now and formerly included amongst the criminal insane population of Broadmoor Asylum, might prove of some interest; with this view the following tables have been constructed. This asylum was opened for the reception of female patients in May, 1863, but it was not until February of the following year that male patients began to be admitted. It will be convenient to regard the latter date (February, 1864) as the true opening of the whole asylum, and it is proposed to consider the cases recorded in the casebooks as epileptic, from that date until February, 1887, a period of 23 years.

* "Lancet," March 3rd, 1888.

TABLE I.—Showing the number of persons* admitted into Broadmoor Asylum† from February, 1864, to February, 1887, a period of 23 years, with the number and percentage of those recorded as epileptic.

	Males.	Females.	Total.
Total number of persons admitted during the 23 years	1,266	394	1,660
Of whom were recorded as epileptic	105	23	128
Percentage of epileptic being	8·2°/o	5·8°/o	7·7°/o

From a consideration of the preceding table it is apparent that the proportion of male epileptics exceeds that of the females by 2·4°/o. Amongst ordinary asylum epileptic patients the proportion between the sexes appears to be slightly less, viz., 2°/o. This information is derived from Dr. Boyd's article on "Vital Statistics," based on 2,000 admissions into the Somerset County Asylum.‡ He found that 12·1°/o of the male and 10·1°/o of the female admissions (persons) were epileptics, representing a difference of 2°/o as compared with 2·4°/o amongst the criminal insane.

It is generally taught that epilepsy affects the sexes equally amongst the general population,§ and Dr. Clarke, of H.M. Prison, Wakefield, who has investigated the subject in connection with prisoners, states that "there is reason to think the same rule holds good amongst criminals."‖

Amongst the criminal insane the total percentage of epileptics, viz., 7·7°/o, is less than that of the ordinary insane, which is 10·7°/o,¶ a difference of 3°/o.

"Many cases of homicidal mania fall under the head of Epileptic Insanity. The presence of epilepsy in homicidal mania is a complication of extreme importance."** These words are fully confirmed in table on opposite page.

* Readmissions excluded.
† Includes female admissions from May, 1863, to February, 1864.
‡ "Manual of Psychological Medicine" (Bucknill and Tuke), p. 125.
§ "Reynolds' System of Medicine," Vol. ii., p. 295, quoted by Dr. Clarke.
‖ "Brain," January, 1880, p. 492.
¶ "Manual of Psychological Medicine" (Bucknill and Tuke), p. 125.
** "Manual of Psychological Medicine" (Bucknill and Tuke), p. 267.

Table II.—Showing the nature of the crimes of epileptic patients admitted into Broadmoor Asylum during the 23 years (1864-1887). Total number admitted, M. 105; F. 23. Total, 128.

Section A. Crimes of Personal Violence.	Males.		Females.		Total.	
(1). Homicidal offences:						
Murder	36		15		51	
Manslaughter	2		1		3	
Attempt to murder, wound, &c. ...	29		2		31	
Total		67		18		85
(2). Non-homicidal offences:						
Assault with intent to rape.........	2		—		2	
Attempted suicide	2		—		2	
Total		4		—		4
Total crimes of personal violence (*Section A.*)		71		18		89
Section B. Other Crimes.						
Larceny	18		5		23	
Burglary..............................	6		—		6	
Arson	4		—		4	
Sheep-stealing	2		—		2	
Forgery	2		—		2	
Placing obstruction on railway ...	1		—		1	
Vagrancy	1		—		1	
Total (*Section B.*) ...		34		5		39
Grand total (all crimes)		105		23		128

From this evidence it is clear that amongst the epileptic insane crimes of personal violence preponderate greatly over other offences, and also that homicidal acts outnumber all other crimes, the ratio being almost two to one, viz., 85 homicidal to 43 non-homicidal. The percentage of male homicidal cases is

63·8°/o, that of the females amounts to 78·2°/o, while the percentage of the whole stands at 66·4°/o.

In the following two tables the proportion of epileptic patients—(1) homicidal and (2) non-homicidal—to the total number of patients included under the same heads is considered.

TABLE III.—Showing the number of homicidal patients of all classes admitted into Broadmoor Asylum during the 23 years (1864-1887) with the number and percentage of those of them recorded as epileptic.

	Males.	Females.	Total.
Total number of homicidal patients admitted (all classes)	541	227	768
Of whom were epileptic..................................	67	18	85
Percentage of epileptics being	12·3°/o	7·9°/o	11·°/o

TABLE IV.—Showing the number of non-homicidal patients admitted into Broadmoor Asylum during the 23 years (1864-1887) with the number and percentage of those of them recorded as epileptic.

	Males.	Females.	Total.
Total number of non-homicidal patients (all classes)	725	167	892
Of whom were epileptic..................................	38	5	43
Percentage of epileptics being	5·2°/o	2·9°/o	4·8°/o

These tables are very instructive and require little explanation. It will be seen that the proportion of male homicidal epileptic patients is considerably in excess of that of the females; this, however, will be readily understood when it is remembered that a very large proportion of all the female admissions into Broadmoor are cases of infanticide, thus causing a preponderance of homicidal offences; whilst amongst the whole number of males the reverse obtains, the non-homicidal offences being in the majority.

Table V.—Showing the number of patients admitted into Broadmoor Asylum during the 23 years (1864-1887) who had committed the capital crime of murder, with the number and percentage of those of them recorded as epileptic.

	Males.	Females.	Total.
Total number of patients of all classes admitted charged with murder	281	177	458
Of whom were epileptic	36	15	51
Percentage of epileptics being	12·8%	8·4%	11·1%

It will be seen that the total percentage given in this table corresponds almost exactly with that arrived at in Table III. Viewed collectively, the preceding tables undoubtedly demonstrate that epilepsy is a disease to be dreaded and an evil in our midst, and that the insane manifestations which it gives rise to, viz., the sudden impulsive fury, or blind, uncontrollable violence, frequently lead to the commission of the most terrible crimes. They also appear to corroborate the words of Delasiauve quoted by Echeverria, viz., "that in passing an epileptic we elbow one who might be an assassin, and that epilepsy, through the fancies more or less delusional which it originates, furnishes a considerable share of the crimes reported in the daily press, and ascribed to mental alienism."

There are several other matters in connection with these epileptic patients which may prove of interest.

(1). As regards their social condition, the following table shows that the majority of the male cases were single, while amongst the females the married state predominated.

Table VI.—Showing the social condition of the 128 epileptic patients.

	Males.	Females.	Total.
Married	28	15	43
Single	64	6	70
Widowed	12	1	13
Unknown	1	1	2
Total	105	23	128

(2). Concerning the ages of these 128 epileptic patients at the date of the commission of their crimes, the following table affords some information.

Table VII.—Showing in quinquennial periods the ages of the epileptic patients admitted into Broadmoor Asylum during the 23 years (1864-1887) at the date of the commission of their crimes.

Ages.	Crimes of Personal Violence.						Other Crimes.			All Crimes.		
	Homicidal Offences.			Non-Homicidal Offences.								
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Years.												
10–15	—	—	—	—	—	—	1	—	1	1	—	1
15–20	4	—	4	—	—	—	1	1	2	5	1	6
20–25	10	5	15	1	—	1	8	1	9	19	6	25
25–30	18	2	20	—	—	—	6	1	7	24	3	27
30–35	10	2	12	2	—	2	4	1	5	16	3	19
35–40	10	5	15	—	—	—	2	1	3	12	6	18
40–45	9	3	12	1	—	1	1	—	1	11	3	14
45–50	1	—	1	—	—	—	1	—	1	2	—	2
50–55	—	1	1	—	—	—	5	—	5	5	1	6
55–60	1	—	1	—	—	—	4	—	4	5	—	5
60–65	3	—	3	—	—	—	—	—	—	3	—	3
Unknown	1	—	1	—	—	—	1	—	1	2	—	2
Total	67	18	85	4	—	4	34	5	39	105	23	128

Judging from the comparative frequency of the number of homicidal offences perpetrated between the ages of 25 and 30,

as shown in the table, that period of life would seem to be indicated as the time when male epileptics are most dangerous.

The activity of the passions at that age, and the fact that in a large number of cases the physical powers up to that time remain unimpaired by the ravages of the disease, may afford a possible explanation of this phenomenon. Again, it will be seen that amongst male epileptics there is a considerable diminution in the number of acts of a homicidal nature, after the age of thirty. This is probably due to the comparatively small proportion of this class of patients at large over that age, many, and especially those of a dangerous and unmanageable character, having previously found their way into asylums. After the age of 45 criminal offences appear to be infrequent, except perhaps amongst old male epileptics, who are prone to commit petty acts, *e.g.*, larceny, &c. In the case of female epileptics, crimes of a homicidal nature appear to occur most frequently between the ages of 20 and 25, and 35 and 40 equally; while offences of a lesser nature seem oftenest met with between the ages of 20 and 30.

(3). Some points concerning the ætiology of the neurosis in these cases may be deemed worthy of attention. In many cases considerable difficulty is experienced in obtaining information regarding the antecedents of patients admitted into Broadmoor, consequently, owing to the comparatively limited data available, any inquiry into the ætiology of the epilepsy of these 128 cases must necessarily be incomplete; still, enough exists to render the subject of some interest. As regards the male cases, in 22 cases the neurosis was conjoined with congenital defect; in 16 cases a hereditary predisposition was ascertained; in 10 cases the epilepsy appeared subsequent to idiopathic causes, viz., sunstroke, fever, fright, shock, &c.; in 10 cases traumatic causes were the origin of the disease, viz., in 9 from head injuries, and in 1 from a gunshot wound of groin. With regard to the 22 congenital cases, twelve committed offences of a homicidal nature, and ten criminal acts of a lesser order, the ratio being, homicidal, 12; non-homicidal, 10; among the idiopathic cases the ratio was, homicidal, 6; non-homicidal, 4; while in the traumatic cases it stood at, homicidal, 8; non-homicidal, 2.

From this evidence it would appear that traumatic causes, especially head injuries, are liable to induce a dangerous form of epilepsy, that idiopathic causes originate a type less violent in character, and that epileptics with congenital defect are not

to be regarded as so homicidally inclined as those whose neurosis is due to other causes.

In 31 out of the 105 male cases, *i.e.*, 29·5 %, a history of intemperance was ascertained. Echeverria has shown that alcohol exercises a baneful effect on this disease,* and with regard to its effects upon traumatic cases, he remarks: "The most remarkable feature in the above traumatic patients was that their paroxysms were attended with impulsive explosions of the most dangerous character." † Again he states, "that intemperance alone has acted as a cause of alcoholic epilepsy in 30·80 % of the cases, in which this latter broke out as its immediate consequence." ‡ During a very limited experience amongst convicts, I have seen no cases of epileptic patients with grand-mal, and, as far as I have been able to ascertain, there are none such in Portsmouth Prison at the present time; there are, however, several prisoners who unquestionably are subject to petit-mal, and in all of whom there is a history of serious head injury, followed by alcoholic indulgence, homicide and penal servitude.

Heat-apoplexy, generally the result of sunstroke, is known to be a cause of epilepsy. The following case is rather unique. A man in robust health entered a boiler before it was properly cooled down; he was overcome by the heat, and had to be dragged out by a fellow-workman. Four days afterwards he was seized with an epileptic attack, other fits followed, and the disease became confirmed. Some time afterwards, under the influence of the "epileptic furor," he seriously assaulted two of his relatives, and ultimately became an inmate of Broadmoor.

It has been shown that in 16 of the male cases a hereditary predisposition was ascertained. Although it can be demonstrated in many cases that this spasmodic neurosis is directly transmissible from parent to offspring, there are probably few instances on record of a homicidal tendency existing in both. An epileptic mother, who died in an asylum, inflicted so serious injuries upon her daughter that death resulted. She also proved dangerous on other occasions. Her son, who is at present confined in Broadmoor, has been subject to epileptic seizures from youth. One night he entered a public-house, and suddenly, without any warning or provocation, murdered two men with whom he had previously been on friendly terms.

* Alcoholic Epilepsy, "Journal of Mental Science," Jan., 1881.

† *Ibid.*, p. 506.

‡ *Ibid.*, p. 509.

Although repeatedly questioned on the subject of his crime, he affirms that he has no recollection whatever of the dreadful event, which was doubtless the outcome of an epileptic impulse.

Thus, then, there is little doubt but that epilepsy is one of the most terrible maladies which afflict the human race, entailing upon its victims many calamities and misfortunes. As regards its medico-legal aspect, the words of Echeverria may be repeated with advantage, viz., "that epileptics cannot be held responsible for any act of violence, perpetrated during their unconscious automatism, which they have no power to control nor capacity to judge."*

On the various modes of providing for the Insane and Idiots in the United States and Great Britain. By D. HACK TUKE, F.R.C.P.†

I count much upon your indulgence in presuming that you are willing to listen to the somewhat desultory remarks I desire to make in response to your invitation to contribute a paper to the Psychology Section of the International Congress.

What I propose to do is to resume, after an absence of three years, the friendly converse with my co-alienists in the United States on certain subjects of common interest which we discussed when I had the pleasure of visiting your institutions. I have not failed to watch since then what has been done and written in your country as to the best way of providing accommodation for the insane, and also as to the best way of restraining them from doing injury to themselves or others, and my observations are made chiefly in reference to these aspects‡ of our department of medicine.

I have thought that in connection with the former subject, it might be interesting and agreeable to you to know the exact distribution of the insane and idiots in England and Wales, and Scotland; not that I suppose, for a moment, that our own allocation of the insane classes is by any means perfect, or that we have succeeded in fully solving the problem which arises in view of the enormous accumulation of lunatics, but it may be that our experience and practice are not without their use in the

* "Journal of Mental Science," April, 1885, p. 37.

† Paper read at the International Medical Congress (Section of Psychology) September, 1887.

‡ The space at our command does not allow of the insertion of a section of the article having reference to Mechanical Restraint.

consideration of the vast question which you, like ourselves, have been for some years anxiously considering, and are considering at the present moment, and, if I may be allowed to prophesy, will consider for some time to come.

Taking, first, the number of the insane and idiots in England and Wales, as reported in the last available Lunacy Blue Book, we have a total of about 80,000 patients (Table I.). Of these about 8,000 belong to the Private, and about 72,000 (the great majority) to the Indigent or Pauper class. I must premise that the numbers I have given do not include the Insane or Idiotic who reside in their own homes, as these are not under the supervision of the Lunacy Commissioners. Although the census of 1881 attempts to furnish returns of the lunatics and idiots in England and Wales, it does not distinguish between those who are at home and those who are in asylums. Moreover, these cannot be considered as sufficiently trustworthy to be included in any scientific statistics.

Now, of the total number which I have given, about 70 per cent. (71·78) are in Public Asylums, in which term I include our County, Borough, and Metropolitan District Asylums, as also our State Asylums and Registered (or Endowed) Hospitals (Table II.). I may state that our County Asylums correspond in their appointment to your State Asylums, but differ from them in this, that they, with slight exceptions, provide for the indigent classes only, while yours receive patients of various social positions. This our Endowed Hospitals do. Our Metropolitan District Asylums are exclusively for the pauper class of patients who are demented or idiotic. In our Proprietary Asylums or Licensed Houses, there are 5 per cent. of the gross number of patients. As we usually call these institutions Private Asylums, it is important that they should not be confounded with those Hospitals for the Insane in the United States which you call Private in common with Proprietary Asylums, in order to distinguish them from your State and Government Institutions. We have about 8 per cent. residing in Private Dwellings, most of them being paupers boarded out, while a small fraction are single patients of the well-to-do class residing in lodgings or the families of medical men and others. Lastly, there are rather more than 14 per cent. (14·8) cared for in Workhouses, and, I believe, fairly well cared for. In some there are very good Lunacy Wards.

I will now take the Private Patients separately and exclusively, and state their distribution, so far as regards their residences in the Public Asylums, the Proprietary Asylums, and

the Private Dwellings (Table V.). Of a hundred such patients considerably more than half, viz., 55, reside in the Public Asylums, about 39 per cent. in Proprietary Asylums, while the remainder, 5 per cent., are single patients in Private Dwellings.

In one of my Tables the location of Private Patients is given in more detail (Table VI.), but I will not weary you with the particulars at the present moment.

If next we take the Pauper class, also separately, we find that nearly three-fourths are in the Public Asylums, a little more than 1 per cent. in Private Asylums, 16 per cent. in our Workhouses, and 8 per cent. in private dwellings, but supported out of the rates, and under official inspection (Table V.).

I pass on to give you a summary of the distribution of Lunatics and Idiots in Scotland, from which you will see that it differs in a striking manner from the corresponding figures in England and Wales (Table VII.). The last returns for Scotland give about 11,000 as the number of insane and idiots under official recognition in that country.

Now, of these nearly 60 per cent. are confined in Public Asylums, while the trifling proportion of a little over 1 per cent. are placed in Proprietary Asylums. Twenty per cent. are in Workhouses, some of which are of a superior kind, and would by some be considered on a par with County Asylums* (Table VIII.). Lastly, we have nearly the same proportion (19·47) per cent. placed in Private Dwellings, mostly boarded out and under official inspection. You will, therefore, see that the Scotch have proceeded much further than we have in England in making use of houses other than Asylums for the Insane and Idiotic classes, while they make scant use of Proprietary Institutions.

When we take the location of private patients separately in Scotland and compare this with the corresponding distribution in England and Wales, we see again a great contrast. Thus in Scotland, of private patients, 85 per cent. are in Public Asylums, barely 8 per cent. in Proprietary Asylums, while the remainder, about 7 per cent., are single patients in Private Dwellings (Table IX.).

I now turn to the statistics of the insane and idiotic in the United States (Table XI.). The attempt to compare these

* Dr. Lockhart Robertson adopted this view in some instructive statistics he prepared in 1881; hence some discrepancy between his figures and mine (see "Journal of Mental Science," January, 1882).

with the corresponding classes in our own country is beset with difficulty, and it requires the greatest possible care to avoid erroneous and misleading comparisons. To some of these I must for a moment refer. In the first place our Lunacy Returns include idiots; yours distinguish between them and the insane. I have thrown together these separate returns of yours in order to allow of parallel facts being brought together. Again, our returns take no notice whatever of patients living in their own families and not under the supervision of the Commissioners in Lunacy. It is, therefore, necessary, when instituting a comparison between the methods of provision for the insane and idiotic classes in the two countries, to exclude the patients at home from our statistics, otherwise it is clear that the relative percentages would be totally misleading. Once more, it is extremely difficult to insure similarity in the grouping of institutions in America and England when we attempt to draw a parallel between them. I must ask your indulgence, therefore, if my comparative grouping differs from what you would consider just, remembering that I tread upon ground hitherto untrodden by any inquirer into the relative methods pursued in your country and ours in regard to the provision for these unhappy and dependent members of society who, we shall agree, are emphatically the "wards of the State," as, I believe, your Horace Mann so well said long ago.

There were in 1880 in the United States (see Table XII.) 60,571 insane and idiots, exclusive of patients residing in their own homes (and here let me say in passing that I must content myself at the present moment with the statistics of your last census). Now of this number nearly half (47·80 per cent.) were placed in what you call State and Territorial Asylums, but which correspond, in some respects at least, to our County and Borough Asylums (Table XIII.).

I hesitate to add to this group what you call County and City Asylums, because I regard these as scarcely comparable, for the most part, with the asylums in our own country, which bear the same designation. Taking them, therefore, separately, I find that in your County and City Asylums there were about 14 per cent. (14·5). In almshouses there were the large proportion of 25 per cent. Some of the larger ones are, I ought to say, not included (in accordance with your own census-grouping) under this category, but are returned under Public Institutions.

Then we come to the Corporate or Endowed Hospitals for the Insane, including your Catholic Institutions for this class. Here

were located 5 per cent. I am at a loss to know whether I ought to add your Training Schools for Idiots to this division, and have, therefore, kept them distinct. They are represented by a proportion of 4 per cent. In your Government Asylum in Washington there is 1·44 per cent. of your insane and idiots. And here it may be well to warn anyone who may study our Lunacy Blue Books that what he will find described there as State Asylums, corresponds to your term "Government," or "owned by the United States." We next come to Proprietary Asylums, a term which I adopt in this place in preference to "Private," as we are accustomed to say, in order to avoid confusion arising out of your custom of including under this designation your Corporate Hospitals for the Insane. Now these institutions in your country are only represented by a fraction (·56) per cent. This is a very striking fact. Strange to say, there are more in your gaols, although the percentage is also only a fraction (·73) per cent.

From what I heard when I was in America, I gathered that there was likely to be an increase of Proprietary Asylums. It is a remarkable fact that while in Britain the current of feeling flows in the direction of the larger appropriation of the Public Asylums to the wealthy classes, there is this reaction in the United States in favour of private enterprise. Notwithstanding this, however, there is, I suppose, no likelihood of your departing, to any very considerable extent, from the system now in vogue. So long as Private Asylums are provided, the friends of patients are left at liberty to choose between the two classes of asylums. This is, I think, as it should be, provided always that adequate supervision is enforced, as well as checks placed on the admission of sane persons from interested motives.

I proceed to compare with these percentages the corresponding ratios in England and Wales at the same date (see Tables III. and IV.), premising that as regards our own country the proportions between the several classes then and now have not materially changed. Taking then our asylums, which correspond in their appointment, although not socially, to your State Institutions, our returns show a percentage of 62 (62·61) as against yours, which is somewhat under 50 per cent. We had a smaller proportion in Almshouses (or, as we term them, Workhouses) than you, viz., 16 as against your 25 per cent. In our Corporate Asylums, which we call Registered Hospitals for the Insane, there were about four per cent. as against your five. In regard to Government institutions the percentage was almost identical with yours, being a little over one per cent. in both

countries. Then, as regards Proprietary Asylums, we find a marked difference, for as against your petty fraction, we have full six per cent. In this you follow the Scotch rather than the English practice. There remain outside these relative statistics the insane and idiots in your country who are in the Training Schools for Idiots (4 per cent), and in your City and County Asylums (14 per cent.).

As I have said before, I hardly know to what in our own country to compare your County and City Asylums, but I should be disposed to class them with our Workhouses. There is one particular—and a most important one—in which your provision for the insane and idiots differs from our own. I have said that your State Asylums resemble our County Asylums in their appointment, or constitution. They differ socially, however, to a great degree, inasmuch as you provide in these institutions for the rich as well as the indigent, while our asylums provide, by Act of Parliament, for the indigent only. Were I to take your County Asylums as corresponding to ours in consequence of their being also restricted to the poor, the disproportion would be extraordinarily great; the ratio would be as 14 in America to 62 in England and Wales. To the former should in justice be added the number of indigent patients in all your State Asylums, but I am not aware that this information is provided in any of your official returns. Nor am I able to compare the distribution of your private patients separately with ours in Britain. It is to be hoped that some of your statistical alienists will endeavour to work this out. Indeed, my paper will have achieved one of its objects if this, as well as other points, are carefully elucidated by your own men.

I ought to state that having had to omit from my comparative statistics the insane and idiots who are reported in your census of 1880* to be residing in their own families, I have necessarily passed over one important feature which the census reveals, viz., the very large number so resident. Thus, as is shown in one of my tables of the total number (168,854), no less than 108,283, or 64 per cent., were at home or in Private Dwellings.† How many there were in the latter I am unable to discover.

* I have decided to retain in the English table for 1880 the number of patients in private dwellings, as they are under official inspection, and I understand that those in the United States are not.

† Dr. Dana and Dr. Sylvester have done some good work in utilizing the census returns, but these returns could not help them to thresh out the point in question.

One would, of course, like to compare these numbers with those in our own country, but I am afraid that however correct your returns may be, our own would not justify our making the comparison. The only way by which to arrive at anything like an approximation, would be to deduct the lunacy returns from those of the census. This would leave some 10,000 insane and idiots as residing at home without any official recognition, or about 12 per cent. It is highly improbable, however, that such an enormous disparity exists between the number of patients retained by their friends at home in the two countries.

It is probably true, however, that the number of this class is greater with you than with us, and greatly in excess of what it ought to be.

I would now go back for a moment to the fact of my having based the foregoing statistics on the official returns made so long ago as the year 1880. No other course could be safely pursued, and I have given for purposes of international comparison our own returns for that year.

It is, no doubt, quite certain that since that period the number of the insane and idiots in American Asylums has greatly increased. What that increase has been, there are no means of knowing with accuracy. Some statistics have, however, been published in the "International Record" for April, 1887, prepared by Mr. Wines, and from these it appears that there are at the present time in hospitals for the insane, of which he has been able to ascertain the number of patients, 40 per cent. more insane patients than were reported in 1880. Mr. Wines, in a letter which I have received from him, states that possibly the creation of the new institutions not contained in the census list would bring the entire increase in the number of patients up to over 50 per cent. more than were enumerated in 1880. He thinks it probable that the total population of the insane hospitals in the United States to-day amounts to very nearly 60,000. Whether the increase in the number of the insane residing in their homes is equally great, there are no means of judging with certainty, but Mr. Wines thinks not. Again there are, unfortunately, no figures (except in certain States) to show whether the number of the insane in Gaols and Almshouses is increasing or not. In short, we do not know for certain whether the proportion which obtained between the several modes of distribution in 1880 is materially altered in 1887.

In the same table, in the "International Record," the

capacity of 88 institutions for the insane is given. Now the number of institutions recorded in the census of 1880 was 139; and, as is well known, many institutions have been established since that year. The number of insane and idiots in asylums in 1880 was, we have seen, 42,083. In the 87 institutions reported in Mr. Wines's table, the number amounted in that year to 32,982, or fully three-fourths of the whole. In 1886 the number in the said institutions was 46,438, showing an increase of about 40 per cent. during the seven years. Mr. Wines points out that at this rate the institutions which contained 42,000 in 1880 will contain 67,000 in the year 1890. If to this number the inmates of the many institutions which have been erected since the census be added, the whole number of patients in institutions for the insane may amount when the next census is taken to 80,000. Mr. Wines states that the average capacity of 79 hospitals was in 1880, 417 beds, while the present average capacity of the same institutions is 587 beds. We in England have, therefore, no difficulty in perceiving that you are advancing with but too certain strides to the huge institutions of the mother country, though you are still far behind us in the race.

In asking permission to say a few words on the question which has so greatly agitated your minds of late years, the best means of effectually caring for the accumulation of chronic cases of insanity, I would say that perhaps there is a temptation to take sides, as it were, and to lay down some hard and fast lines which shall be observed by all persons engaged in the work, and in all places in which the insane have to be provided for, whereas I hold that we must have the greatest variety possible in the modes of providing for patients of different classes, whether socially or mentally.

Allowing, then, for special circumstances, including locality, the provision already made, and the social position of the patients, I would venture to express my satisfaction with the progress made of late in your country in the direction of segregation of the insane. I believe that while this plan may, like every other, be abused, and when so abused may involve difficulties of an opposite kind from those from which it is intended to escape, the work has already been productive of the greatest service, and is sufficiently successful to justify its adoption, modified as experience may dictate, in other States. I can have no doubt that the Willard Asylum constituted a vast advance on what had been previously done and regarded as orthodox in the United States. This experiment reflected

great credit upon Dr. Chapin's admirable powers of organization and constructive ability. If Kankakee must still be regarded as to some extent, in matters of detail, upon its trial (mainly as to the multiplication of the separate houses), I do not think that there is any reason to regret, but quite the contrary, that this great undertaking has been attempted. If I am correct in this view, the friends of the insane have cause to be grateful to Mr. F. H. Wines for the freshness which his energy and freedom from bias have infused into this cause, and to Dr. Dewey for the loyal, conscientious, and persevering manner in which he has devoted soul and body to the accomplishment of the difficult and often discouraging task which he was appointed to perform.

I understand that the ideas embodied in the Kankakee Asylum have been more or less fully carried out in three other institutions since erected. I refer to the one at Toledo, Ohio, that at Richmond, Indiana, and the other in Dakota. Then, again, you have the new Asylum for the pauper insane about to be erected by the City of New York on Long Island, which in many particulars resembles Kankakee, though I am informed by Mr. Wines that it owes its inspiration not so much to that Asylum as to Alt-Scherbitz in Germany. If this statement be correct in regard to the extension of the system of a cheaper style of architectural construction, and of detached wards in connection with existing institutions, as the best method of providing for the increase of the number of patients, it would appear that Committees of Management and Superintendents are directing their steps in this direction, and that something like a revolution in this great field of work has been effected during the last few years, and promises to extend further and further.

I am interested in observing that a definite experiment has been made with the sanction of the law of Massachusetts to provide for a certain class of patients in private families. Mr. Sanborn, the able Inspector of Asylums in that State, in a paper read before the National Conference of Charities and Corrections, July, 1886, states that the anticipations of a lady member of the Massachusetts State Board (Mrs. Leonard) have been more than justified by the result, although the number has not been so large as expected. I see that Mr. Sanborn estimates that no less than 500 out of the hospital-population of nearly 6,000 in that State could be provided for in this way without danger at a cost of $3.25, or 13s. a week. It must, however, be most carefully carried out, not so much in consideration of the

patients as the families in which they are boarded. In Scotland the proportion of patients boarded out is 19 per cent. as against 8·25 per cent. in Massachusetts. Applications, it appears, have been made by suitable families sufficient to provide for twice as many patients as have been furnished. The danger is that a house which has no more rooms than are really necessary for the health and comfort of the family will have these seriously lessened, even if there is not absolute overcrowding. I strongly hold that all available means of providing for the insane should be entertained, and think that the caution which evidently controls this praiseworthy attempt in Massachusetts may prevent abuse, but nothing to my mind can be more certain than that of all forms of location this is the one which, while it may be a blessed change to the patient, requires the greatest possible consideration to save the families, in which patients are domiciled, from unwarrantable discomfort and even lamentable consequences. I regret that in the discussion of this question these dangers are so frequently passed over.

I would here revert to our Metropolitan District Asylums which I mentioned in the enumeration of our institutions, because they form an important experiment in the provision for the chronic pauper class—an experiment which, in some respects, has been attended with success, however repugnant to one's wishes is the herding together of such large numbers of insane.

In a paper on the provision for the insane which appeared in the Proceedings of the Twelfth Conference of Charities and Corrections, Dr. Chapin, I am glad to see, recognized the present tendency to adapt your plans to the various classes and conditions of the insane, and refers to the serious accumulation of bedridden patients, epileptics, and feeble dements. He points out that in the usual arrangements of an ordinary hospital for the insane they scarcely have a proper location. Their habits are distressing to patients of another class, and they have been too often thrust into the highest part of the building and in consequence rarely go out of doors. This has been but too true of asylums both in England and the United States. In our own country distinct wards for the class referred to have been prepared in many asylums as at Hanwell; or separate institutions like the Metropolitan District Asylums have made special provision for this class, with large day-rooms and huge dormitories constantly supervised at night. Dr. Chapin prefers a separate building to allotting more wards to the original asylum. His recommendation is quite in accordance

with the course pursued in the asylums referred to in England. He prefers that they should be one storey in height, including an associated dormitory, with a few single rooms and a large day-room.

It is interesting to find that Dr. Chapin's experience at the Willard Asylum showed that 10 per cent. of the whole number of patients might be placed in such a building as he recommends. I quite agree with him when he says "that it seems that some special arrangement for this class is very desirable where the number is sufficient to warrant it." For noisy dements it is essential to have single bedrooms for the sake of the other patients, and therefore this class must not be retained in asylums not provided with single rooms.

It may be of interest to state briefly what the cost of these asylums has been, for the economical provision for the insane is a question which is pressed upon us in both countries. Doubtless in England we have travelled along the same road that you have, in exceeding in some instances the bounds of moderation, and have indulged in a too-lavish expenditure upon the buildings provided for the indigent insane, while one has always a fear lest the economist should interfere with the efficient provision for the insane. Still, I think that in recent years the experiment of the Metropolitan District Asylums has proved that it is possible to build institutions for quiet dements, idiots, and imbeciles at a very much smaller cost than that expended upon our magnificent county asylums. I am able to give you the cost of three of these institutions in the neighbourhood of London, viz., Caterham, Leavesden, and Darenth. In this outlay I include the land, the building, plant, roads, &c., furniture, and, in short, all the expenses connected with the construction. Caterham was built for the accommodation of 2,050, and cost £97 per head ($485); Leavesden, built for 2,000 patients, cost £90 per head ($450); Darenth Asylum and the Idiot Schools, containing 900 adults and 500 children, cost £185 per head ($925), the higher cost being due to the character of the building for the Idiot Training School.

I should like to say a word on one subject in which I found on visiting your country there had been very considerable and gratifying reform in some localities, but on which I could not fail to perceive that much—very much—remained to be done and undone. I allude to the number of patients still in Almshouses. I could not avoid the impression that there was a large amount of neglect and of ignorant treatment of the

insane in these receptacles, some of them totally unfit for the use thus made of them, and I fear from the statements which I have seen in papers forwarded to me from America, that a strong necessity exists for putting a stop to the treatment of poor insane patients who require medical attention or restraint, in ordinary Almshouses instead of in asylums specially constructed for the insane, officered by medical men, and under State control.

I am glad to see in the ninth Biennial Report of the Board of State Commissioners of Public Charities of Illinois (1887) a strong expression of opinion in regard to the improper use of Almshouses in the place of State Institutions. Says the report: —"The uniform testimony of persons competent to form an opinion as to the condition and treatment of the insane in Almshouses, is that these are not suitable and proper places for their care. There are many towns and counties in the United States in which the care of paupers is committed by the authorities to the lowest and best bidder—a practice which virtually makes merchandise of their misfortunes, and results as a rule in the selection of persons least fitted to care for them aright. . . . The condition of the insane in Almshouses is often deplorable, not so much owing to the brutality of their keepers, as to their ignorance." Much more is said to the same effect, but I am glad that the writer can honestly add, "As a counterpart to this dark picture it must nevertheless be said that in some Almshouses the insane are well treated in all respects. They enjoy a large degree of personal freedom, and are usefully employed according to their capacity to work. Association with sane paupers is an advantage to many of them, and they are more accessible to their friends."

The result of my visit to the Almshouses in Wisconsin was to form a favourable opinion of the provision made there for the insane. I do not say the very best that could be made, but that which seemed to me fairly good. Having regard to the enormous expense which the ordinary State Asylum involves, and the continual tendency in consequence to thrust the indigent insane into the miserable houses to which the foregoing report refers, I say that better far than the latter, and as satisfactory a compromise as can be expected, are the Almshouses and small County Asylums of Wisconsin under the present system of inspection, combined with State control. I agree with the observation that a "State which allows insane paupers to remain upon county-farms should retain and exercise absolute control over the treatment to be accorded to them."

Before passing away from the distribution of the insane and idiots in the United States and Great Britain, and the best mode of providing accommodation for them, I will very briefly summarize what I have said.

1st. In England the great majority of patients are placed in our County Asylums. While regretting the size to which many of them have attained, I believe them to be the best means of providing for the great mass of the insane poor, if proper provision be made for curable cases. Some, if not most, of these are needlessly expensive for the quiet demented class and imbeciles, and for such the cheaper constructions of the Metropolitan District Asylums are on the whole a successful experiment.

2nd. In Scotland the boarding-out system is the most striking feature. It offers sufficient encouragement for carrying it out in the United States to make it worthy of imitation in suitable localities, but extreme care is requisite to avoid doing moral mischief to the families with which they are boarded.

3rd. The provision for the paying class of patients and for those high in the social scale but unable to pay is made in England and Scotland by charitable institutions, and as regards the former class by private enterprise. The tendency of popular sentiment and of attempted legislation, with us, is to encourage the system of charitable institutions, to add to county asylums some accommodation for the higher classes, and to limit, if not eventually abolish, all Proprietary Asylums.

4th. In America the provision of asylums by the States for mixed classes of patients is a salient feature. The question arises whether the paying classes have not been thus provided for out of proportion to those of the pauper class, the latter being relegated to inferior County Asylums and Almshouses.

5th. The location of the insane and idiots in Almshouses in the United States is much in excess of what obtains in England, and it is a subject for congratulation that at no time was there a greater endeavour made to lessen the evil arising out of this undue resort to such buildings than at the present time, although the Wisconsin experiment of county management of Almshouses under State control has ensured a vast improvement in the system, and will continue to do so as long as an active and intelligent Board is in office.

6th. The movement in favour of variety in the construction, arrangement, and position of the buildings of an asylum, and so allowing of judicious segregation, is worthy of imitation,

provided always that the violent, dirty, and sick patients are not so isolated as to be deprived of efficient medical supervision.

TABLES.

Provision for the Insane and Idiots of Great Britain and the United States.

TABLE I.

In England and Wales, January 1, 1886.

Location.		*Private.*	*Pauper.*	*Total.*
County, Borough, and State Asylums and Registered Hospitals	52,204	4,641	52,895	57,536
Metropolitan District Asylums ...	5,332			
Proprietary Asylums		3,249	1,190	4,439
Workhouses		—	11,868	11,868
Private Dwellings under Official Supervision		447*	5,866	6,313
Totals ...		8,337	71,819	80,156
Ratio per 10,000 of the population ...		2·98	25·78	28·76

TABLE II.

Percentages of the foregoing Table.

Location.		*Private.*	*Pauper.*	*Total.*
County and Borough Asylums ..	(60·05)	5·79	65·99	71·78
State Asylums	(1·05)			
Registered or Endowed Hospitals ...	(4·02)			
Metropolitan District Asylums ...	(6·66)			
Proprietary Asylums		4·05	1·49	5·54
Workhouses		—	14·80	14·80
Private Dwellings under Official Supervision		·56	7·32	7·88
Totals ...		10·40	89·60	100·00

TABLE III.

Lunatics and Idiots in England and Wales, Jan. 1st, 1880.

Location.		*Private.*	*Pauper.*	*Total.*
County and Borough Asylums ...				
State Asylums	43,730	3,744	44,459	48,203
Registered or Endowed Hospitals				
Metropolitan District Asylums ...	4,473			
	48,203			
Proprietary Asylums		3,408	1,141	4,549
Workhouses		—	11,991	11,991
Private Dwellings under Official Supervision		468†	5,980	6,448
Totals		7,620	63,571	71,191

* Exclusive of 248 Chancery Lunatics in accordance with the custom of the Lunacy Commissioners.

† Exclusive of 208 Chancery Lunatics. If included, the percentage would be ·95.

TABLE IV.

Percentages of the foregoing Table.

Location.		*Private.*	*Pauper.*	*Total.*
County and Borough Asylums ...	56·32	5·25	62·47	67·72
State Asylums	1·13			
Registered or Endowed Hospitals ...	3·98			
Metropolitan District Asylums ...	6·29			
Proprietary Asylums		4·78	1·60	6·38
Workhouses		—	16·84	16·84
Private Dwellings under Official Supervision		·67	8·39	9·06
Totals ...		10·70	89·30	100·00

TABLE V.

Location of Private and Pauper Patients (Insane and Idiots) in percentages of their own class in England and Wales, Jan. 1, 1886.

Location.		*Private.*	*Pauper.*
County, Borough, and State Asylums, Registered Hospitals, and Metropolitan District Asylums ...	7·43	55·67	73·66
Proprietary Asylums		38·97	1·66
Workhouses		—	16·52
Private Dwellings under Official Supervision ...		5·36	8·16
Totals ...		100·00	100·00

TABLE VI.

Location of Private Patients (Insane and Idiots) in England and Wales, Jan. 1, 1886 (in more detail).

Location.	*Numbers.*	*Percentages.*
In Private Asylums	3,249	38·96
Registered or Endowed Hospitals	3,054	36·63
State Asylums	846	10·14
County Asylums	741	8·91
Private Dwellings under Official Supervision ...	447	5·36
Total ...	8,337	100·00

TABLE VII.

Location of Lunatics and Idiots in Scotland, Jan. 1, 1886.

Location.	*Private.*	*Pauper.*	*Total.*
Public Asylums (including Perth Prison and Training Schools)	1,524	5,065	6,589
Workhouses	—	2,281	2,281
Proprietary Asylums	139	—	139
Private Dwellings under Official Supervision	120	2,058	2,178
Totals ...	1,783	9,404	11,187

TABLE VIII.

Percentages of the foregoing Table.

Location.	Private.	Pauper.	Total.
In Public Asylums (including Perth Prison and Training Schools)... ...	13·62	45·28	58·90
Workhouses*	—	20·39	20·39
Proprietary Asylums	1·24	—	1·24
Private Dwellings under Official Supervision	1·07	18·40	19·47
Totals ...	15·93	84·07	100·00

TABLE IX.

Location of Private and Pauper Patients in Scotland in percentages of their own class, Jan. 1, 1886.

Location.	Private.	Pauper.
Public Asylums	85·48	53·86
Proprietary Asylums...	7·79	—
Workhouses...	—	24·26
Private Dwellings	6·73	21·88
Totals ...	100·00	100·00

TABLE X.

Location of Private Patients in Scotland, Jan. 1, 1886 (in more detail).

Location.	Numbers.	Percentages.
In Registered Hospitals (Royal or Chartered Asylums)	1,191	66·80
County ("District") Asylums	139	7·80
Proprietary Asylums	139	7·80
Training Schools	132	7·40
Private Dwellings under Official Supervision ...	120	6·73
State Prison at Perth	62	3·47
Totals ...	1,783	100·00

TABLE XI.

Location of the total number of the Insane and Idiots in the United States, Jan. 1, 1880, with percentages.

Location.	Number.	Percentages.
At home and in Private Dwellings (not under Official Inspection)	108,283	64·15
Public Asylums or Hospitals for the Insane, and Private Asylums	42,083†	24·92
Almshouses	15,139	8·96
Training Schools (Idiots)	2,429	1·43
Other Institutions	476	·28
Gaols	444	·26
Totals ...	168,854	100·00

* Including some "Parochial" Asylums.

† Includes some of the largest Almshouses.

TABLE XII.

Location of the Insane and Idiots in the United States, Jan. 1, 1880, exclusive of those at home.

Location.	*Number.*	*Percentages.*
In Public Asylums and Private Asylums ...	42,083	69·46
Almshouses	15,139	25·00
Training Schools	2,429	4·01
Other Institutions	476	·80
Gaols	444	·73
Totals ...	60,571	100·00

TABLE XIII.

Location of the Insane and Idiots in the United States, Jan. 1, 1880, exclusive of those at home and in Private Dwellings (in more detail).

Location.	*Numbers.*	*Percentages.*
Government Hospital for the Insane	873	1·44
State and Territorial Asylums	28,947	47·80
City and County Asylums, including three large Almshouses	8,822	14·56
Corporate Hospitals...	3,098	5·10
Training Schools for Idiots	2,429	4·01
Proprietary Asylums	343	·56
In other Institutions	476	·80
Almshouses	15,139	25·00
Gaols	444	·73
Totals ...	60,571	100·00

TABLE XIV.

Location of the Insane only in the United States, Jan. 1, 1880, inclusive of those at home.

Location.	*Numbers.*	*Percentages.*
At Home and in Private Dwellings, without Official Supervision	41,083	44·78
Public Asylums, Hospitals for the Insane, and Proprietary Asylums	40,942	44·42
Almshouses	9,302	10·12
Gaols	397	·43
Other Institutions	235	·25
Totals ...	91,959	100·00

CLINICAL NOTES AND CASES.

Recovery from Chronic Insanity: Four cases. By S. A. K. Strahan, M.D., Barrister-at-Law, Assistant Medical Officer County Asylum, Northampton.

Records of the recovery of patients after long periods of insanity are rarely of any practical value. They are, nevertheless, always cheering to the asylum medical officer. They occasionally light up in his mind a ray of hope, and stimulate him to still further efforts in the treatment of any of his chronic cases who may show even the slightest tendency towards recovery. But, unhappily, in the great majority of cases his best efforts are of little avail, and his patient remains with him until Death takes the second instalment of his debt—which it were, perhaps, better he had taken with the first.

Notwithstanding the fact that these records of isolated cases are of small practical importance, yet will I record my cases and make my comments in the hope that someone may find time to collect and systematically arrange them, when, doubtless, they will teach their lesson.

In three of the four cases given below recovery took place in patients who had been removed from one asylum to another, and at the first glance I thought that perhaps the sudden and complete change of environment experienced in removal from one asylum to another might have been a potent factor in the circumstances leading to recovery. We have all noticed how great a change for the better is frequently brought about in the insane simply by a change from one ward to another in the same asylum. In such cases the change is partial, and can only act as a very mild moral shock, yet it often acts beneficially. Why, then, when the change is radical and sweeping, should we not look for a more marked and lasting impression?

I looked up the last published cases of recovery from chronic insanity (two cases recorded by my friend, Dr. Francis, in the Journal of January, 1887), and curiously enough both were cases of patients who had been transferred from one asylum to another. Had, then, the change of residence had any share in bringing about the happy result? Had removal from the asylum—the theatre wherein the unreal phantoms of the disordered fancy had so long played their parts; the removal of all the familiar faces so long associated with the creatures of

delusion; the unexpected peep into the long-forgotten world of reality, and the hurry and hubbub of a railway journey—had all these coming suddenly and unexpectedly proved such a moral shock as to wake up the dreaming brain to healthier action?

Of course in the greater number of cases of chronic insanity there is present organic mischief of one kind or other, and in these cases it is hopeless to look for recovery, but considering the number of strange and sudden recoveries met with from time to time we must admit that in many cases the insanity is the outcome of mere functional disorder, and in these cases everything is to be hoped for from moral treatment, and it was just possible the shock had acted beneficially—had proved the turning-point, the exciting cause of recovery.

It would have been agreeable to have been able to say something in favour of the transference of pauper lunatics to asylums outside their own counties. It is a proceeding which entails great hardship and suffering, not only upon the patients themselves, but upon their friends and relatives—more especially among the poorer classes—and it would have been pleasing to think that so harsh a proceeding might prove even in rare instances beneficial to the patients. However, on a second look at these recoveries of transferred patients—both those of Dr. Francis and my own—it was at once evident that only in one of the five cases could the shock produced by the change of residence by any possibility be reckoned an active factor in the cure.

In both Dr. Francis's cases some years elapsed after admission into the second asylum before improvement set in, and in two of my three cases years also passed in the second asylum before recovery—which was in all the cases fairly rapid—made its appearance. In the other case (case II., *infra*) the change of residence did certainly seem to be the starting-point—or was coincident with that other change which was the starting-point—towards recovery. For although the woman was resident in this asylum thirteen months, the improvement in her mental state was distinctly marked from a few days after her admission here. But in this case another agent was at work, and it is to be feared that change of residence had but a small share in bringing about the improved mental state.

The other agent here referred to was the climacteric, and to it, I think, might be rightly attributed, not only this case, but a very large proportion of the total of these recoveries after prolonged attacks of insanity, more especially among women.

In considering the six cases under notice (Dr. Francis's and my own) it is first to be observed that only one case is that of a male, and that he recovered at the age of 64, which is as nearly as possible the ordinary period of the climacteric in the male. Again, the ages of the women are 55, 54, 47, 44, and 42, the extremes of which ages mark with tolerable accuracy the variations usually met with in women at this period. It may be, therefore, that even for the chronic lunatic this epoch is of great moment, and that even after years of melancholia, mania, or dementia there is at this period a kind of last chance of the disordered brain once more taking on healthy action.

We know that the climacteric with its many nervous troubles is a most fruitful source of mental disorder, and it is just possible that in the great change undergone at this period, which in the female often amounts to a tearing down and re-building of the nervous system, the disordered brain, which has been incapable of healthy thought for years, may, like other organs, as the stomach, etc., quit abnormal and once more take on normal action.

It is well known that women who have been hysterical (a condition very nearly related to insanity) for years, and spent a most miserable existence in consequence, frequently lose all their nervous troubles at this period, and take a new lease of life, and if these lesser nervous disorders are often recovered from during this period of change, why should we not expect to find recovery in some cases from the more severe of allied disorders? This is a point which I think has not received sufficient attention. In "Bucknill and Tuke" it is said that the "change of life occasionally exercises a beneficial influence on those already insane," but I don't know if it has been noted that a very great majority of these cases of recovery following prolonged mental disorder do occur about or soon after the establishment of the second phase of adult female life. But if upon search such proves to be the case, then it will behove us to watch the coming of this critical time in the lives of our chronic lunatics, and endeavour by every means in our power to aid in the establishment of a more healthy action in the nervous centres while the system is being rebuilt.

The following is a very brief record of the cases referred to above:—

Case I.—E. A., a married woman, aged 45, was admitted into —— asylum in October, 1877. She was at that time suffering from a first attack of insanity, supposed to have been brought on by grief for the

loss of a child. The medical certificate upon which she was committed to the asylum stated: "She has numerous delusions about 'a secret which she must not tell;' that people threaten her; that someone wants to murder her; that voices speak to her husband through her mouth; talks a lot of nonsense about being a child."

After a residence of close upon six years she was in July, 1883, transferred to this asylum, and was at that time still suffering from mania with delusions. On admission she was noted as "not conscious of her position, talking in a flighty incoherent manner, very excitable, and has various delusions." She was in only moderately good bodily health, and suffered from some lateral curvature of the spine—dorsal. Weight, 7 stones 3 lbs.

For a year after admission there was little change in her condition. She was frequently restless and excited for a few days at a time, and in the intervals reserved and silent. Towards the end of 1884 she became greatly depressed, and frequently "cried wildly" and refused to speak. At this time her bodily health was not good, and she lost flesh. About May, 1885, her health improved, and it was noted that the attacks of depression which had been periodic were much less frequent. From this time she gained slightly in bodily health; the depression gradually wore off, leaving her mental faculties impaired, but free from the excitement and delusions. She was now coherent and rational, although still feeble in mind, and the improvement continued so that she was discharged recovered in July, 1887, after an attack of insanity extending over a period of nine years and ten months. Weight, 8 stones.

Case II.—A. M. W., a married woman, aged 39, was admitted into —— asylum in May, 1876, suffering from a first attack of insanity. The supposed cause of the attack was stated to be "deficient nutrition." The medical certificate was as follows:—"Is very incoherent, rambling from one thing to another. Says she cannot live; that she is to be burnt; that she is lost and nobody can save her. Says everybody who looks upon her will be burnt, and that she hears voices telling her that she is lost." She remained an inmate of the asylum, showing little or no improvement, until November, 1882, when she was transferred to this asylum.

On admission here she was still suffering from mania, as is seen from notes made at that time, in which it is stated: "She is not conscious of her position . . . has delusions . . . talks and swears at imaginary people . . . is noisy and excited, and uses most filthy language." Her general bodily health was fairly good. Weight, 9 stones 3 lbs.

Two days after admission she had settled down and was noted as "quiet and tractable." She was at once induced to employ herself with familiar household duties, and inside a month from the day of her admission she was sent to the ward occupied by convalescents and better class (mentally) patients, and with the exception of a very few

slight attacks of excitement during the first month of residence, the improvement was steady and uninterrupted.

During the first six months of her residence here menstruation was most irregular. At about the end of that time the function altogether ceased, and from that time she gained in health and put on considerable flesh. Weight, 10 stones 11 lbs. In January, 1884, thirteen months after her admission here, she was discharged recovered, her mental disorder having continued for a period of a few weeks less than eight years.

Case III.—M. K., spinster, a dressmaker, aged 47, was admitted into —— asylum in April, 1880, suffering from a second attack of insanity. The medical certificate was to this effect:—"She is agitated and distressed in mind, and troubled by a delusion that she has no brain; further says that she feels afraid and incapable of taking care of herself, and for that reason wandered from home and concealed herself for fourteen days on Tooting Common."

She was admitted here in November, 1882. She was at that time in fairly good bodily health, although rather thin in flesh. There was inequality of pupils. Weight 8 stones. Mentally she was only "semi-conscious of her position. Talked incessantly of herself, and of what she had done and was going to do. Had delusions of various kinds."

After admission she suffered from alternate attacks of exaltation and depression, and these were so regularly periodic in character that, although menstruation had ceased, their uterine origin at once suggested itself. When these attacks of excitement came on she became violent, destructive, and dirty in her habits, and her language was frequently obscene, which also pointed to uterine irritation. In the intervals between these attacks she was coherent and calm, and at times would employ herself, but she was often irritable and abusive towards the nurses and officers.

This was her condition for four years. Late in 1886 a change was noticed. The attacks gradually became less marked, and finally disappeared. She began to make flesh, and to employ herself regularly at her trade of dressmaking. From this time there was no relapse, and inside twelve months from the time the improved condition was first observed she was discharged recovered in November, 1887, seven years and eight months from the onset of her attack.

Case IV.—J. S., a married woman, aged 34, was admitted into this asylum in October, 1879, suffering from a first attack of insanity supposed to have been induced by domestic trouble. There was a history of hereditary taint, her grandfather and her sister having been insane. When admitted she was in a state of acute mania. She was "restless and excited; expression of countenance wild; most loquacious, and incessantly talking in a perfectly incoherent manner; unable to answer questions rationally; hair dishevelled; foaming at mouth; violent to those near her, and refused to remain in bed."

She appeared to be in fairly good general health. She was a tall, well-built, powerful woman, but as the excitement and sleeplessness continued for some weeks after her admission she soon lost flesh, and in February, 1880, when she first became calm, her weight was only 9 stones.

After a short period of calm the maniacal state again set in, and she was noisy, sleepless, violent, and destructive as before. Again, after a time, the excitement abated, and she became quiet and tractable, but the calm was only of short duration, and again and again did she break out into maniacal frenzy of so acute and violent a character that she had often to be confined to her room to prevent injury to herself and others.

These attacks generally began with the approach of the menstrual period, and they often extended without interruption for several weeks. Menstruation was irregular and the flow meagre, and this condition continued until recovery set it.

This state of alternate storm and calm persisted till early in 1885, that is, for over five years. During these five years the bodily health varied with the mental state. She lost flesh during the terms of excitement, and rapidly regained the lost ground during the intervals of quiet, her weight ranging from 9 stones 7 lbs. to 12 stones 2 lbs.

She was treated with various sedatives, including morphia, bromide of potassium, chloral, and hyoscyamine, which latter drug was most useful, but its effects were of the most temporary kind.

Late in February, 1885, after a particularly severe outburst of maniacal excitement, during which sleep was obtained by the administration of paraldehyde, she suddenly became calm, and soon became clear and rational. She was then sent to the laundry, and induced to employ herself, and from this time she had no relapse, and her recovery was steady and fairly rapid.

At first her mind, although clear, was weak and unstable, but with improved general health it became stronger, and she was discharged well in October, 1886, exactly seven years from the onset of her attack of insanity. Weight, 11 stones 9 lbs.

A Strange Case of Suicide. By W. B. Tate, M.D., Medical Superintendent of the Lunatic Hospital, The Coppice, Nottingham.

Miss H. E. T., aged 31 years, was admitted on 3rd June, 1887, suffering from melancholia, with marked suicidal tendency. On 28th May had attempted, when staying in Wales, to destroy herself by throwing herself over the cliff on to the railway beneath, and when prevented became violent and tried to thrust the point of her umbrella into her eye. Has had fits of depression since she was 17 years of

age, and has been subject to strange ideas. When 19 was in love with a cousin, who died, which caused her much unhappiness. Since then she has at various times imagined that gentlemen were in love with her, but felt that she must not marry on account of the delicacy of her family, one brother being insane and another nearly so. In 1884 went to Paris and worked in a Mission there for four months, during which time she was much exposed to wet and cold, and got out of health. Afterwards she nursed her mother through a severe illness, and underwent much fatigue and anxiety. In March last became very depressed, and was sent into Wales for change of scene, and whilst there became actively suicidal. On admission here she was much depressed, and stated that she was very wicked, having practised deceit on everyone, had no hope of ever being any better, or of being forgiven, and had an irresistible desire to take her life, &c. She is of the average height, body fairly nourished, has an anxious, careworn expression, face pale, eyes natural, pupils equal, but somewhat sluggish, tongue clean, pulse 84, regular and compressible, bowels confined, has not menstruated since March, appetite fair, does not sleep well. A special nurse was appointed to take charge of her during the day, and another to sit up with her at night, in addition to the regular night nurse, and she was never to be left alone. She walked in the grounds during the day, and occupied herself in reading and knitting when indoors, took her food well, but did not sleep well. Nothing noticeable occurred until the morning of the 6th, when while brushing her teeth she suddenly, before the nurse who was with her could prevent her, thrust the handle of the brush down her throat, leaving only a small portion of the brush protruding from her mouth. This was at once removed, in spite of her resistance, and she was put back to bed. The throat bled slightly at the time, and shortly became inflamed and swollen, and she had difficulty in speaking and swallowing. The pulse rose to 108 and temperature to 100·8. 7th. Throat sore, swollen, and painful, had much difficulty in swallowing ; temperature 101, pulse 100 ; bowels have acted, fomentations were applied and gave much relief. 8th. Throat sore and painful, breath and expectoration offensive, right tonsil and right side of neck swollen, pulse 110, temperature 100 ; bowels have acted, takes milk freely, does not sleep well. To-day she stated that she had done something very wicked, and on being asked what it was, she said "that on the night of the 4th she managed to secrete and take to bed with her a hair-pin, which during the night she straightened under the bedclothes and thrust through her navel into her bowels towards the *left side*." She also said "that she turned her back to the nurse, who was sitting by her bedside, and by whom she was never left for a moment, and that she had no pain or difficulty in doing it, except for the last inch, which hurt her." A most careful and thorough examination of the abdomen was made, but nothing could be felt, neither could any puncture or mark be discovered, nor was there a trace of blood on her nightdress

or on the sheets, nor any pain or tenderness. 9th. Throat and right tonsil inflamed and swollen, breath offensive, pulse 140 ; temperature, morning 100 ; evening 103 ; face flushed ; persists in her statement about the hair-pin, but it cannot be felt on examining the abdomen. 10th. Throat somewhat better, breath less offensive, she swallows more easily ; pulse 100 ; temperature 99 ; bowels have not acted since the 8th. To have Ol. Ric. ℥ss. On making the usual abdominal examination to-day the assistant medical officer thought he felt a hard substance in the outer part of the *right* lumbar region, pressing which caused pain towards the umbilicus, but which I was unable to discover though I immediately and carefully sought for it. 11th. The senior surgeon and one of the physicians of the Nottingham Hospital, at my request, made a most careful and thorough examination of the patient to-day without causing her any pain, but were unable to detect any foreign body or anything abnormal Throat still sore ; takes milk well. 12th. Throat still sore, and breath offensive. To-day for the first time complained of pain in the abdomen, and has vomited ; pulse 120 ; temperature 98·8. 13th. Has not slept ; has pain and has vomited again ; bowels have acted ; pulse 110 ; temperature normal ; retains iced milk. 14th. Throat less painful ; temperature normal ; pulse 110 ; tongue coated. Had great pain in the umbilical region during the night, followed by numbness of and inability to move the *left leg*. No distension or tenderness of abdomen ; vomited twice this morning ; pulse soft and slow. In the evening she again vomited, and the abdomen became somewhat distended ; bowels have acted twice ; pulse 130 ; temperature normal ; takes milk well. 15th. Patient worse ; face pinched, hands cold and clammy ; pulse hardly perceptible ; bowels have acted three times ; abdominal distension has disappeared. She was quite conscious up to the time of her death, which took place at 2.15 p.m.

A post-mortem examination was made, and on the inner surface of the umbilicus a small dark-coloured spot was observed, surrounded by an area of congestion. The small intestines and part of the large were intensely inflamed, varying in colour from dusky red to a purplish black, and were distended with gas. The hair-pin, which was slightly curved, and measured 5½ inches, was found thrust through the mesentery, with one end in a portion of the colon, and the other end in the psoas muscle. The peritoneum also was much inflamed, and a quantity of flaky, turbid fluid was present in the abdominal cavity. The other organs were healthy. The brain was not examined. Rigor mortis was well marked.

The above case is remarkable from the method adopted to effect self-destruction, and from the prolonged absence of symptoms indicating enteric mischief, the increase of temperature and acceleration of pulse being attributed to the inflamed condition of the throat. No suspicion of the patient having

inflicted the injury on herself was entertained until she voluntarily made the statement that she had done so, the truth of which was at first doubted, as she showed no sign of pain or discomfort during the thorough examination of the abdomen, which was made daily, nor when walking in the grounds with the nurse. I am not aware that there is any similar case on record.

Cases of Masturbation (*Masturbatic Insanity*). By E. C. SPITZKA, M.D.

(*Concluded from p.* 61.

The following appears to me to embody the most important features of this psychosis :—

1. *General Progress.*—Usually the onset of the disorder is characterized by a great variation in symptoms from day to day, or week to week. In some cases the type of symptoms similarly varies, destructive and aggressive tendencies preponderating at certain times, and mental and physical lethargy at others. As a rule there is a gradual deterioration, preceded by abrupt descents, occasionally interrupted by as abrupt temporary improvement, and mainly involving the memory and moral sense.

It must be acknowledged that masturbation occurs as an associated factor in a far larger number of cases of insanity than are covered by the group of which histories I. and XI. are respectively the male and female types. These represent a form of insanity which is never found except after extensive self-abuse, and there is a constant relation between the intensity of its symptoms and the degree to which the habit is practised.

In the earlier periods of this psychosis a change in the symptoms through the day is noticed. The patient who arises confused with an absent expression, or listlessly remains in bed, improves as the day progresses, and in the afternoon may be bright, vivacious, and intelligent. This is attributable to the habit itself, which practised during the night, commonly in the morning hours, or supplemented by nocturnal emissions (which also are apt to occur towards morning), exerts its bad effect on rising. As the day progresses the recuperative powers of the youthful organism succeed in obliterating these immediate effects. As long as this occurs there is a possibility of restoration, provided the habit and seminal losses be checked. In the later periods of the confirmed disease, in those cases where the habit has been discontinued because of impotence, and yet the patient is beyond recovery, an opposite condition is noted. The patient awakes comparatively bright, coherent, and active. As the day wanes he

becomes irritable and silly by spells, and in the evening is the dement of the day before. This indicates an extreme exhaustion of the nervous system, which, refreshed by sleep, returned to a *quasi* normal state, but, exhausted by effort, relapses into an anægic stupor. It is often noted that a similar condition marks recovery from stuporous states, but the apathetic condition recurs at a later and later hour each day, to eventually disappear, which is not the case in dementia from onanism.

2. *Age.*—The typical psychosis occurs between the thirteenth and twentieth years. Insanity from self-abuse occurring before the thirteenth year differs from the form illustrated in Cases I. and XI. in this: that the dementia is more even, more like true imbecility. In addition, younger subjects are liable to epileptiform and violent paroxysms in the transition period; primary stupor is not infrequent. It is usually due to some additional cause, such as overburdening at school, or subjecting the youthful organism to the influence of factory work, as in Case XIII. Those forms of insanity which develop after the twentieth year belong to the paranoia group.

3. *Sex.*—Insanity of masturbation is at least five times as frequent among males as among females. This is due to the greater rarity of self-abuse in the latter. Some authors believe that the effects of such indulgence are less serious in the female, owing to the less exhausting nature of the discharges. This is, however, more than made up for by the fact that the female has practically no limits set to the perpetration of the act. Insanity from self-abuse appears to be in both sexes proportionate to the number of devotees.

4. *Predisposing Causes.*—In the vast majority of cases the sufferers from this disorder have a bad heredity. This is not necessarily in the direction of insanity. Often it is found that one or other of the parents is physically or mentally weak. In a few cases the same vice is practised with the same result in several members of one family. Self-abuse to become a sole cause of insanity must be begun early and carried very far. In persons of sound antecedents it rarely, even under these circumstances, suffices to produce an actual vesania. The experience of physicians who treat other results of masturbation is, that in the majority, seminal weakness, timidity, self-reproaches, and the somatic results of the habit represent all the damage done; and in most of these cases a reasonable amount of confidence may be instilled in the patient's mind that he is not likely to end his days in an asylum; however, he may be a weakened competitor in the struggle for existence. This may be maintained, not only against quacks, but some in our own profession, who appear to emulate these meretricious alarmists.

I am unable to utilize the tables furnished by others, regarding the influence of heredity, as insanity of pubescence and hypochondriacal paranoia have been confounded with masturbational insanity in them.

My own figures are too small to permit the drawing of conclusions. In 18 male cases the following etiological features were recorded :—

2. Insane or neurotic ancestry (direct).
1. Father had been a confirmed onanist.
1. Uncle suffering from masturbational insanity.
1. Syphilis.
1. „ and alcoholism.
1. Cunnilinguism and alcoholism.
1. Phthisical ancestry.
4. Markedly weak-minded mothers.
5. No predisposing factor.
1. Depressing influences on mother during gestation.

From this it would not seem as if insane heredity played a very important part in the etiology of the agitated dementia and kindred types resulting from masturbation. On the other hand, the hypochondriacal, or persecutional paranoia of later life, which Burr and others classify as masturbational insanity, shows a marked preponderance of hereditarily tainted cases. Thus of eight such cases in my table four had direct insane ancestry, in two it was suspected, in one there had been an infantile vertebral disease resulting in spinal irritation, and in one an infantile convulsive affection.

5. *Accidental Causes.*—Clouston says that quack advertisements produce as much insanity as the habit of masturbation itself. As a rule I believe that such publications increase the existing tendency to the development of morbid fears and hypochondriasis, just as religious works produce a combination of morbid religiousness and sexuality in other patients of this class. Certainly they play but a very slight *rôle*, if any, in the aggravation of the dementia resulting from the habit in young subjects. Suicide has occurred in masturbators from an aggravation of the despair and remorse incident to depression, provoked by such reading. The majority of suicides on the eve of marriage are the result of a fear—perhaps well-founded—that the marital act is impossible. Let those who recommend sufferers from spinal irritation, hypochondriasis, and spermatorrhœa to marry ponder over this fact. I have seen outbreaks of a distressing state of mingled anxiety, despair, and hopeless dejection in two subjects who had recovered—the one from masturbational insanity, the other from an aggravated neurosis—after respectively three and six years of uninterrupted health. The outburst in each case was provoked by the near approach of the wedding day. It should also be remembered by those who advise promiscuous intercourse as a remedy—and this recommendation has been supported by high authority—that spermatorrhœa is not improved by excessive venery, nor by gonorrhœa ; nay, that the latter accident is competent to provoke it in those not previously afflicted thereby ! In both sexes the secret vice is sometimes continued after marriage, so that its dangerous influence is not necessarily abrogated by entering into this state.

SYMPTOMS : *Physical* (a).—The general bodily state is usually poor in the earlier period of the disease. Marked evidences of general and of cerebral anæmia are common. In a large number of patients physical health apparently improves with developing deterioration, and some are even robust in the period of fatuity. These are the patients in whom the habit has been discontinued because of impotence. In the atonic and melancholy phases the hands are very clammy and cold, to become burning hot when symptoms of spinal irritation develop.* The gastric functions are usually impaired at first, peculiar sensations being experienced in the epigastrium, and anorexia or gastric catarrh subsequently developing. Later there may be gluttony, but in anxious patients—particularly when cardiac palpitations accompany the exacerbations of the gastric disorder—refusal of, or abstinence from, food may develop, as an initiative phase of stupor or melancholia.

6. *Psychical.* The general tendency is toward an agitated dementia, showing, as already stated, remarkable oscillations, and usually leaving some acquirements, such as the musical, the memory of poetry, and artistic ability, intact. It is first noticed that the power of attention fails, then that of concentration, until the patient loses the faculty of maintaining consecutive mental effort. All his energies share in this failure ; he is active, even explosively so, for brief spells, but prolonged application becomes impossible, and subjective unhappiness results. The patient is at this period cowardly, afraid that people can read his history in his face, has vague fears of various kinds, and may develop very dangerous morbid impulses.† While there is a remarkable dulness of the normal emotions, there is often an affectation of a high moral tone, aggressively urged, a tendency to denounce normal sexual indulgence, and to suspect the sexual purity of others. Such patients do not enjoy rough manly sports, but as deterioration progresses indulge in childish acts, collecting and preserving worthless articles, keeping diaries with ridiculous, trivial, and incoherent entries, finally losing all sense of shame, sinking deeply in the gathering sea of dementia ; they are unable to maintain even the hypocritical affectation of purity and honour characterizing the intermediate period. They continue their vice, if able, with shameless publicity, and drift into the unclean wards of asylums, unless some complication cuts short their wretched careers. Others sink into apathy, and refuse to leave their beds until the day is far advanced. The majority of dements of this class are liable to attacks of destructiveness, are filthy, easily get into a " pet " or " sulks," or indulge in violent scold-

* Additional somatic disturbances are found in this group, in common with the non-insane sufferers from self-abuse. As these have been already enumerated, they are not recapitulated here.

† One patient, aged 39 years, had to struggle with an impulse to kill his brother in the night-time, and another to throw himself in the water in the day-time. The impulse to strike and cut people, particularly children, is common, and occasionally associated with sexual perversion.

ing, or are guilty of indecent exposure. In its earlier phases this deterioration is often marked by spells of emotional excitement or depression. The latter may be of typical melancholic character, associated with *tædium vitæ*, or be associated with catalepsy. Suicide is sometimes resorted to, but more frequently it is contemplated and not carried out, owing to cowardice.

Where deterioration is less rapid, and leaves the strictly intellectual powers comparatively uninjured, the social instincts and moral nature may, for a time at least, alone show the depravity induced by the unnatural habit. The obtrusive selfishness, cunning, deception, maliciousness, and cruelty of such patients render them the curse of their home, and of the asylum to which it finally is found necessary to send them. The most kind-hearted and philosophical alienist may find it impossible to reconcile himself to regarding them as anything else than repulsive eye-sores, and a source of contamination of other patients—physically and morally.

Skae's statement that the delusion of having committed the unpardonable sin is frequent with these patients I am not able to confirm. The "unpardonable sin" of theologians is often found in the melancholia and paranoia of certain females who are entirely devoid of sexual sensibility. In ignorance of the subject an onanist may regard his practice as an unpardonable sin, and thus occasionally give rise to such an impression as the one Skae formed. But on cross-examining him, to find what he regards as that sin, it will be found that he probably never heard of its nature, and is merely repeating a phrase once heard.

Prognosis. Few patients suffering from the fully-developed disorder just described recover. The most favourable cases are those in which it is rapidly produced, and where maniacal excitement or primary stupor preponderate. Reaction, together with a change of habits, is more likely to occur under these circumstances than where the nervous system is broken down by slow stages and repeated assaults. It is also a favourable indication in the early stages if signs of shame are observable ; on the other hand, a loss of the sense of shame is of sinister augury. The occurrence of suicidal melancholia is not necessarily unfavourable. If the habit be discontinued, its termination is as likely to be favourable as is that of simple melancholia in the young. The ability to refrain from indulgence, after its serious consequences are pointed out, is the most efficient guarantee of recovery. It exists in perhaps one out of fifty cases. In the others temporary impotency, and enforced continence by restraint, are the only chances the patient has. Those whose progress to dementia is arrested because their exhausting vice is thus checked only recover partially. The more advanced the patient is in years the less favourable are his chances. A larger number recover before than after the twentieth year. This is probably due to the fact that the vice has been continued unsuspected for a longer period in those treated after the latter period.

Differential Diagnosis. The following forms of insanity may occur in masturbators, and may be confounded with the form just described.

1. Acute mania and acute melancholia, differing in no essential respect from typical mania, and lypemania occur in young persons addicted to this vice. They are recoverable disorders under these circumstances, and it does not seem proper to confound them with the true insanity of masturbation. The clinical and prognostic feature should determine nomenclature here. It is best to designate such cases as mania or melancholia *from* masturbation. In giving a prognosis in such cases one important fact is to be borne in mind, namely, that in the course of insanity of pubescence, maniacal or melancholic episodes may occur, blurring the hebephreniac features, so as to render a diagnosis from the *status presens* difficult or impossible. Where the previous history indicates such a character the prognosis should be very guarded, as in the disappearance of the acute psychosis deterioration (accelerated by it) may become unmasked.

2. Imperative conceptions, morbid fears, and *folie du doute* are frequent among masturbators. They do not differ in character from the similar conditions found in persons who owe these distressing symptoms to other causes. A disorder characterized by indecision and self-reproaches—the patients claiming that they cannot become happy, cannot make their husbands happy, have neglected their domestic duties, and been harsh to their children—I have found in several married women who had extensively practised the vice both before and after marriage. It is not followed by true melancholia, but may lead to outbreaks of confusional frenzy. It must not be forgotten, however, that a very similar psychosis is found in females to whom self-abuse cannot be imputed, and in whom profound cerebro-spinal exhaustion and irritability appear to develop with uterine disease.

3. Hypochondriacal and persecutory delusional insanity (paranoia) are frequently found in persons who have been excessive masturbators. But the habit itself and its attendant losses are not the immediate cause of the insanity ; they promote it by the intervention of spinal irritation. In such patients we find the usual and essential characteristics of paranoia as developed through other causes. The "magnetic currents," "electrical shocks," "blissful"—sometimes erotic—sensations, hysterical globus, olfactory hallucinations, and mingled sexual and erotic delirium are found in non-masturbating paranoiacs, and in those who masturbate *after* the outbreak of the disease. It is true that certain delusions are more frequent among masturbatic than the non-masturbatic paranoiacs. The delusion of being infected with syphilis, of inimical agencies which draw away the semen through various openings of the body, are quite characteristic, but they may also occur under other circumstances. In Catholic countries particularly the association of religious and sexual delusions, which Griesinger, Clouston, and Burr regard as characteristic, means

very little. A similar association is found in epileptics, irrespective of their habits. The masturbating paranoiac sometimes indulges in marriage projects. The ensuing delusion that females make nocturnal attacks on his "desirable" person is the logical result of that feeble-mindedness which permits every wish to be the father of the thought. The desire to marry is in other cases *quasi* medicinal; those believe in the curative effect of marriage who have long passed the zenith of marital power; while those who are not past redemption have an aversion for women which is as inimical to their somatic interests as the fruition of the projects of the former class is chimerical.

4. Katatonia is in a large proportion of cases found to occur in inveterate masturbators. Of the five male cases described by the founder of this clinical form,* it is stated as an etiological feature in one, but the peculiar character ascribed to two other patients as existing prior to the outbreak justifies more than a suspicion that they were also onanists. Of four cases forming the basis of another paper† on the subject, two are attributed to onanism; in a third a suspicion of self-abuse is justified. Cataleptic stupor is not an infrequent episode in true masturbational insanity (Cases I. and VI.).

5. Simple stupor is sometimes found in young subjects to follow masturbation, over-exertion, either mental or physical, being auxiliary, and moral shocks being operative in other cases. It does not usually under these circumstances present any features which permit a differentiation from stuporous insanity due to the last-named causes in those who have not been onanists. In the following case, however, the presence of a hypochondriacal state antedating the stupor, and remarkable in so young a subject, seems to indicate the influence of the vice.

XIII.—*Stuporous insanity at* 14 *years, following over-exertion in an onanist; indications of a preliminary period of hypochondriacal depression.*

David G—, aged fourteen, from Graez, in Polish Prussia, arrived in this country five months ago, and worked very hard in a tobacco factory as a stripper. The father is an under-sized man, of rather depressed expression of countenance; morbid heredity is denied. His habit was not discovered until recently, when it was found that in the sleeping as well as the waking state he repeatedly touched his genitals, and had to be restrained. He has the characteristic appearance of a masturbator, deep dark rings under the eyes, a stooped, relaxed posture, the knees bent as if feeble, and he appears to be in a reverie

* Kahlbaum, "Die Katatonie oder das Spannungsirrsein," Berlin, 1874.

† Kiernan, "Alienist and Neurologist," October, 1882. Masturbation is assigned a place in etiology in Cases I. and IV. In Cases I. and IV. the resemblance, both of the associated etiological and clinical features, to my case is very close.

or abstracted. His illness was first noticed a few weeks ago, when he had anorexia, lay down on the floor, appearing to be tired, and becoming monosyllabic. October 5th he came home from his work saying that he did not feel well, and two days later repeated this. He said that the other boys at the factory had told him he had consumption. He also complained that he had pains in urinating and tenesmus. He was taken to a physician, who found that there was no anomaly of the urinary excretion. From Friday noon to Saturday morning he passed no urine ; what was later obtained being found to contain no abnormal ingredients. Absolute mutism then developed, the patient appearing to wish to speak, particularly when the physician urged him to communicate those complaints which he could relieve. He would then sidle up to him with an appealing expression, giving vent to a low, inarticulate sound, as if under great strain. After being conducted out of the room, he voluntarily returned to repeat the performance, making the impression of a person struggling with irresolution while in a dazed state. He passed into a typical stupor of a week's duration, from which he is now rapidly recovering, presenting no signs of positive mental perversion, and all this under purely restorative treatment administered by his family physician, Dr. S. P. Cahen.

6. Hebephrenia it is very difficult to differentiate from true masturbational insanity for reasons hinted at in the earlier part of this article, namely, their frequent association and their occurring at nearly the same period of life. Thus Clouston* states, of his typical case of "adolescent insanity,"† that it was feared "he had been given to habits of masturbation," and that there was "a great deal of the sexual running through his incoherence and speculations," while in the excited spells he "masturbated a great deal." In advocating the farinaceous and milk diet in cases of insanity of adolescence and pubescence, the same writer says : "It is, I think, certain that the habit of masturbation, which is so frequent and so deleterious in such cases, is less practised by patients on this diet, and when practised is less damaging to brain-function and takes less hold on them."

I have been greatly puzzled to account for cases where from the appearance and history of the patient I should have suspected masturbation, but where rigid watching excluded its existence, and examination of the genitals revealed the fact that these were congenitally defective, either in dimensions or in other respects. In one such case I found an infantile character, marital projects, a retired, shy disposition, intense devotion to religious literature, abstraction, and forgetfulness. The testicles had not descended ; one was in the ring, and not larger than one kernel of a pea-nut. In a second case, where the parents were first cousins, the patient was one of seven

* *Op. cit.*, p. 486.

† Clouston divides what most writers call insanity of pubescence or hebephrenia into insanity of adolescence and insanity of pubescence proper.

children—three being males—all of whom had some anomaly of the sexual apparatus. The first-born had but one testicle ; the second had a congenital constriction of both meatus and prepuce ; the third, my patient, had infantile genitals and buphthalmos. At his fifteenth year he resembled a boy of eleven in size and behaviour ; there had been noticed a failure of the memory, mendacity, and deterioration in his scholastic acquirements for a year past. A peculiar precision in regard to trivial matters is noted. He is particular to have the same chair at meal-times, and to secure it goes to table a quarter of an hour before the members of his family are summoned. He picks up buttons, papers, and other valueless articles, concealing them in various hiding-places; is suspicious of the other children, and his countenance is often illumined by a haughty smile of affected superiority. He appears to be rapidly deteriorating. Such cases approximate those of masturbational insanity on the one, and of hebephrenia on the other hand. The question arises whether a congenital defect of cerebral development, associated with deficient genital development, is reproduced in the acquired neuroses due to wilful abuse of the sexual apparatus.

Pure hebephrenia differs from insanity of masturbation in its greater constancy ; there is not that same abrupt variation from day to day. The patient is not shy nor retired, and it will often be found that he has been peculiar in this respect during childhood. There is a tendency to use meaningless or irrelevant language in both disorders. But that of onanistic insanity in adolescents is random, and impresses one as the ruin of an incompleted mental edifice ; while that of hebephrenia is comparable to an edifice improperly founded and unsymmetrically completed. There is more project-making in hebephrenia. Projects are also announced by the onanist, but rarely at this age, and not as persistently urged. Hebephrenia may be regarded as the "Original Paranoia"—masturbational insanity as the Progressive Dementia of the young. As already stated, the features of the one form may become engrafted on the other; and, as Clouston hints, this is one of the gravest questions with which the therapeutics of insanity of pubescence has to deal.

The question has been asked whether natural sexual excess can ever produce insanity similar to the form described as masturbational. If the term "masturbational insanity" be limited as I propose, I should answer in the negative. We have so little experience with sexual excess at the period of life mentioned that it might seem premature to give so positive an answer; but what little clinical knowledge we have supports the theoretical premises which I will detail in concluding. I have but two such observations at my disposal. One was that of a young man of nineteen, whose father and grandfather had been notorious for their salacious proclivities. Since his sixteenth year he had been his own master, provided with an unlimited supply of money, and gone to every excess in a natural direction that

can be conceived of. At the nineteenth year he was indulging with his mistress for the eleventh time, when at the height of the orgasm he had a violent convulsive attack, with complete loss of consciousness. Physicians were immediately called, and the convulsions recurred again and again with increasing violence, notwithstanding the exhibition of chloroform, ether, and other measures. A hypodermic of morphia was then given, and the patient fell into a deep sleep. When he awoke he was found to have total amnesia, and was for eight months in a condition of gradual clearing up. At first he would be noticed to be clear for a few minutes after awakening, then for a few hours. As the day progressed his amnesia returned, and in the evening he would be in a confused, silly state, confounding persons and failing to recognize the nature of objects. The lucid period became longer and longer, until finally he was confused and forgetful only in the hour or two preceding retirement ; convalescence was then rapidly completed. No further convulsive seizures occurred, and the patient is now, that is, a year and a half after his discharge from treatment, entirely normal. While there is some resemblance between the amnesia and confusion of this patient and that of some cases of masturbational insanity, particularly in respect of the diurnal change, yet none of the moral perversions or emotional anomalies so characteristic of the latter were found in his history. It is this difference that indicates that there is a discrepancy between the results of natural and artificial excesses. The latter are carried out in secret, in dread of discovery, in a knowledge of the fact that the vice is unmanly, and its perpetrator looked upon with scorn. Then the victim of the habit suspects that his vice is recognized. His fancies and reflections all concentrate on this subject, and the transition to the mental state portrayed in the earlier part of the paper is an easy one. He who is guilty of early sexual excesses is aware that his acts are looked upon as objects of manly ambition ; usually the nobler emotion of love is called into action, and masculine dominion over the female asserted in its most intense mode of expression. The moral effects of self-abuse and of sexual indulgence are thus seen to be as antithetical as two things can well be.

In a physical respect, there is as great a difference between the two. Admitting, for the sake of argument, that as a physical act a single perpetration of self-abuse is as little injurious as a single coition, we must bear in mind that self-abuse is begun at a much earlier age than sexual excess. Furthermore, the former can be carried to much greater lengths than the latter. Nature has so arranged that there are limits to sexual excess. When the reflex apparatus in the cord, the seminal vesicles, and the erector mechanism are exhausted, a bar is set to further indulgence. No such limits check the onanist.

General Paralysis of the Insane simulating Cerebral Tumour. By G. H. Savage, M.D.

Harriett L., single, $17\frac{1}{2}$; mother healthy; father a waiter, sober, but has failed, and is now in a very reduced position to what he was. One brother and five sisters healthy; no family neurosis. Has had scarlet fever, no sequelæ. Had bronchitis, and then a discharge from right ear. This caused relief to head, so mother says. Since then has been under aural surgeons, and has now a permanent perforation of membrana tympani. She learned to read, write, and do all that other children did. In no way a fool. Menstruated at 14, naturally in every way. Has got weaker for about one year. Has been to the hospital for consumption.

October 7th, 1887.—She is tall, very thin, stoops, high palate, fairly good teeth; head small and with parietal bosses. Walks with a stagger; reflexes exaggerated—most on left. Walk not ataxic. Has some sickness; axes of eyes not straight, but there is full power of movement, and has power over sphincters; there is no marked loss of memory, and has some loss of sight; optic disc changes doubtful. Speech high-pitched; tongue tremulous, pointing to left side. Admitted into Bethlem Hospital November 14, 1887, after being in St. Thomas' under Dr. Bristowe.

Summary of certificates.—Patient is childish in manner, laughs idiotically at nothing, is perfectly incoherent in her remarks. Keeps constantly repeating "167 lozenges." Asks if I would like to hear her sing.

Other facts, etc.—Nurse informs me that patient is dirty in her habits, that she screams out loudly for no apparent reason for half-an-hour or more at a time, and that the childishness and incoherence are habitual. That she is incapable of carrying on a conversation, returning childish, irrelevant answers, often repeating, *e.g.*, that "she has 160 lozenges;" that she cannot name the month or year correctly. To-day she says she has just been out to sell her child, whereas she has not left the hospital—St. Thomas'.

On admission.—Informant, mother. Father suffered from asthma. From infancy patient suffered from occipital headache and occasional deafness; had a fit when in St. Thomas' Hospital of doubtful nature. Scarlet fever, measles, whooping cough; discharge from ears since ten months old till recently. Parents lost much money six years ago. Catamenia regular.

Earliest symptoms twelve months ago.—Seemed weak, neglected duties; speech became blurred. Gradually got weaker, had fits of screaming, complained of noises in ears, and headache. Her mind became progressively weaker; sight markedly affected four months; mother noticed some dragging of right leg some months ago; gait recently became feeble and staggering; has occasionally during last few months had attacks of vomiting without apparent cause. Fancied

people were in the room ; heard noises. " Sick " taste in mouth continually ; cramps in right hand. Tongue clean at tip and centre, edges furred ; appetite good. Heart and lungs apparently normal ; apparently quite blind : no perception of light. Pupils dilated ; right larger than left ; react slightly to light. " Atrophy of both optic discs following neuritis " (Nettleship). Answers to questions irregular at times, incoherent at others, idiotic, or the question ignored. Emotional, either chuckling or yelling as though in great pain ; memory fair. Noisy at night ; sleeps at short intervals. Cannot stand alone. Knee reflexes exaggerated.

Examination on admission, November 14.—Expression varies between that of vacuous amusement and extreme terror. She is apparently totally blind, as she does not flinch when the hand is brought rapidly towards her eyes. She says she can see, but refuses to attempt to count fingers held up before her. Her speech is thick and blurred, so much so at times as to be unintelligible. Her answers to questions vary immensely. When first questioned she was coherent ; informed us that she had just come from Saint Thomas' Hospital, and gave the names of the doctors there correctly. Asked how she came here, she replied, " I walked, and can run, too." While her eyes were being examined, she chattered incessantly, her remarks being intermingled with chuckling and rubbing of her hands together as though she was greatly amused. Then suddenly uttered a prolonged yell, and on being asked why she did so replied, " I have had no supper." Told that she should have some arrowroot, retorted, " I'm sick of arrowroot, but I've a very good appetite," and then gave vent to another scream. On saying " Good-night," she replied, " Good-night, doctor, and held out her right hand. She says she has no pain, that she used to suffer from headaches, and had a discharge from one ear.

15*th November*.—Passed a noisy, restless night. Her tongue is protruded slightly to the left, and mouth drawn over to the right when she laughs. She cannot stand alone, and when she is lifted on to her feet cries out.

18*th November*.—Not much change ; cries out less often. The right pupil is more widely dilated. There is a rhythmical twitching of the left corner ef the mouth, and occasional irregular jerking of head. Loss of control over both rectum and bladder (incontinence).

23*rd November*.—No change.

27*th November*.—Screams more frequently and sleeps a great deal. Appetite ravenous.

6*th December*.—No change ; pulse rapid and feeble ; difference in size of pupils less marked.

15*th December*.—Seems weaker, and is losing flesh ; less easily roused to notice surroundings.

1888.—6*th January*.—Very weak ; pulse rapid and irregular ; frequently vomits ; water bed ; takes no notice when spoken to ; frequently calls out, but her voice is more feeble.

25th January.—Becoming more and more doubled up; face pinched; still cries out every now and then; vomits occasionally; no alteration in other physical signs.

6th February.—Early this morning suddenly became worse. Her respiration stopped, conjunctivæ became insensible, and pulse feeble. She was not convulsed, and there was no special loss of power anywhere; no biting of tongue. She remained in this condition for about an hour, breathing very feebly, and looking as if about to die. She, however, improved subsequently, and passed into her usual condition, occasionally calling out. Appears to understand what is said to her. The legs have gradually become contracted, so that now the left leg is strongly adducted and flexed almost up to the chin, with the calf resting on the left thigh. They cannot be disentangled.

February 21st.—This afternoon became unconscious without any special convulsive attack being noticed; respiration extremely shallow and feeble; pulse almost imperceptible; conjunctivæ insensible; pupils somewhat contracted; muscles of neck rigid and head somewhat drawn back; arms flexed and also rigid; legs as before; the face became very pale; unable to swallow.

February 25th.—During the last three days has been in a varying condition, improving at times on the above state, and having once or twice a day attacks of syncope, in which she became apparently moribund. This morning is in this condition, marked pallor of face, breathing shallow and irregular. Pulse almost imperceptible. Died at 11 p.m.

Post-mortem.—Limbs, especially lower, contracted and wasted; no bed sores; calvaria thin, normal; dura mater rather shrunken, of normal aspect. On removing this there were several spots of wasting about the mid-brain, though the wasting was pretty general; the frontal lobes were small; there were about 12 oval smooth and rounded bodies like melon seeds beneath the arachnoid; there were three on each side in the pre-frontal region.

The membranes were waterlogged and friable; not to be separated; they tore off rounded masses of cortex. The adhesions were pretty general over the cerebral. The whole brain was very firm; the grey matter of very good colour; no excess of puncta; the lateral ventricles were dilated with fluid; the ganglia, however, were firm, of normal appearance; the medulla was very firm, and the pons also. The olivary bodies on both sides were round and prominent; the medulla was very firm throughout; the ependyma was thickened; the cord was small, firm, and of fair colour; no change was to be seen in lateral columns. Encephalon, 37 oz.; heart, $7\frac{1}{2}$ oz.; right lung, 14 oz.; left lung, 23 oz.; liver, 35 oz.; right kidney, 3 oz.; left kidney, 3 oz.; spleen, 2 oz.

Consolidation of upper part of lower lobe of left lung; both lungs congested at bases; no tubercle; pleura normal; pericardium and

heart normal; no tubercle of peritoneum; intestines normal; kidneys normal; no signs of disease of bones of ears.

In the above case we have a very misleading association of symptoms. A very large number of general physicians saw the case, and there was no difference of opinion as to the cause. All agreed that the symptoms, as they arose, pointed distinctly to some intracranial growth or tumour which was almost certainly situated in the middle line near the floor of the fourth ventricle. The tubercular history and the history of discharge from the ear made some tubercular tumour or an abscess probable. The distinct implication of both optic discs early in the disease, and the double deafness, with the vomiting, also seemed to confirm the diagnosis.

The post-mortem examination exhibited general adhesion of the membranes to the cortex, and a wasted brain with changes such as those found in general paralysis. But it is possible that some form of chronic meningitis may have been the cause of the whole disease, and this point adds greatly to the importance of the case.

OCCASIONAL NOTES OF THE QUARTER.

Trial of Mason v. Marshall, Shaw, and Gauchard, at the Bristol Spring Assizes, before Mr. Justice Field.

As this is a case which deeply concerns our special branch of the profession, and, as the judge pointed out, is equally important to the public in general, we shall give an outline of the facts and also of the noteworthy points which arose during the trial, with our own comments on the whole.

First, then, the plaintiff is a lady of position, who having gone over from the English to the Romish Church, spent some of her time as a boarder in convents. She seems to have become more and more unhealthily suspicious, so that she fancied things were said and done against her by her superiors as well as by her companions. She moved from one place to another, but at the convent over which Madame Gauchard was Lady Superior, she showed such alarming signs of mental disorder that medical advice was called in. This, by the way, was freely given.

On the strength of two medical certificates the lady was sent to Brislington House, where she resided about two years.

She was transferred in succession to two other asylums, that for Roman Catholics, St. George's Retreat, Burgess Hill, and Holloway's Sanatorium, Virginia Water.

She was under certificates for two and a half years, and when removed was not free from her fancies. The contention of the prosecution was that the doctors had not taken sufficient care in signing the certificates, that these latter were criminally weak, and that the Lady Superior was a party to a plot to incarcerate the plaintiff.

The original action was for malice against the two medical men, as well as against Madame Gauchard. This was only abandoned for a charge of negligence at the time of the trial, and Mr. Justice Field commented strongly on this in the opening of the case, as well as in his summing up. The most important legal question that arose was when the defendants first announced their intention of going into the condition of the plaintiff after the commission of the alleged offence. Sir W. Phillimore, for the plaintiff, urged that all such evidence was inadmissible; and he appealed to a ruling by Mr. Justice Pollock in Tanfani's case to support his contention. On the part of the defence, Mr. Bucknill urged that the notes of that ruling were unreliable as being supplied by Mrs. Weldon's shorthand writer; and, further, that such evidence was clearly relevant if continuity could be shown in Miss Mason's condition at the time she was placed under restraint, and the period during which she was detained in the several asylums. Mr. Justice Field at once expressed his own opinion that such evidence was admissible, and was confirmed in his decision by consultation with Mr. Justice Mathew. This is noteworthy, as forming a contrast to the way in which he had rejected medical evidence in the case commented upon in the last number of the "Journal of Mental Science." But if the object of the trial was to arrive at the truth, the admission of such evidence was clearly indispensable. The later evidence went to prove that the plaintiff suffered from hallucinations of hearing, which explained many of the acts of unreason and violence committed by her during the period with which the action was concerned.

The trial occupied four days, and the counsel on both sides strained every nerve to win a verdict. A vast mass of evidence was brought forward, and the judge showed great patience in listening to what must have seemed unnecessary evidence. When he was convinced that no case existed for the plaintiff he was specially severe in his remarks on the conduct

of the case by Sir W. Phillimore, and on several occasions rebuked that learned counsel for his improper method of conducting the prosecution.

The judge endeavoured to get the plaintiff to withdraw from the action, as he considered it but a disagreement between a nun and her spiritual mother. The charges of malice and conspiracy having been withdrawn as against the doctors, the judge said that he considered they ought never to have been placed in the claim.

The plaintiff was called, and during the giving of her evidence as to violence and destructiveness, the judge once more endeavoured to get Miss Mason to accept his advice, but in vain. The evidence of a servant at Mr. Mason's was taken, and was of no value ; then Dr. Herbert Tibbetts gave evidence, as reported in the "Bristol Times" and "Mirror," that he had seen the defendants' certificates, and he was of the opinion that a reasonable man would not have signed a certificate of insanity on the facts observed by themselves or reported to them. Dr. Forbes Winslow gave evidence which, if intended to support the plaintiff's case, was markedly weak, as he had to admit that the symptoms mentioned in the certificates were recognized to be symptoms of insanity. It is to be remarked that the only question asked him by the plaintiff's counsel was as to the sufficiency of the medical certificates. What occurred appears to be inconsistent with his latest statement in the "British Medical Journal" that he was in favour of the medical men, and a hostile witness to Madame Gauchard only. It appears to us worth considering whether this case might not be a suitable opportunity for eliciting an expression of opinion from those who would speak with authority, how far we are justified in giving an opinion as to the sufficiency or correctness of a certificate when we have not ourselves examined the patient. On this occasion, as on a previous one, Dr. Gasquet told the counsel who had to examine him in chief that he objected on principle to answer such a question, that he was no sufficient judge of the condition of a patient whom he had not seen, and that he, therefore, requested him to put this to him instead—whether he considered the certificates sufficient to justify him in receiving the patient? This concluded the case for the plaintiff, and we must say the judge extended his mercy to the plaintiff in granting a case. It seems to be the experience of nearly all the judges that it is better even in very weak cases to allow the fight to go to the bitter end, so that the chances of appeal may be reduced.

It is not necessary to go through the evidence for the defendants, as it was simply a heaping up of facts all pointing to the state of mental disorder from which Miss Mason had suffered. The whole was a consistent picture of a well-recognized form of disorder, and, as such, the more careful the examination, the more clear the symptoms were made to appear.

After weary days of trial the end came; but one of the most important features of the last day but one was the evidence of Mr. Martin, Chief Clerk to the Commissioners, in which he brought forward a letter, written by Miss Mason, in which the nature of the insanity was made clear.

The judge, in summing up, pointed out how important it was that insanity should be taken in an incipient stage, when alone, as it appeared, there was a possibility that by proper treatment the disease might be cured. It was important, on the other hand, that personal freedom from restraint should be guaranteed. Again, with regard to medical men, if it were to come to this, that no respectable medical man would put his hand to a certificate, it would be a most unfortunate thing for the patients themselves. No doctor was bound to act, but if he acted he undertook a duty, and was responsible for any breach of it. The judge further said the doctors' general duty was to exercise proper care and skill, and it was alleged that they had not done that. There was no suggestion of any particular act of negligence; the whole case was that their inquiry and investigation were insufficient. The only evidence as to the alleged negligence was contained in the plaintiff's own account of the interviews with the doctors. Certain of the acts reported to the doctors and mentioned in the certificates were not denied. As was most pertinently pointed out, the jury had the views of experts, and they had, what was more important, the conduct of the Commissioners whose duty it was to examine the certificates and act or refuse to act upon them, and those five or six gentlemen having examined and acted upon the certificates, the jury would consider whether they were sufficient or not. The questions left for the jury, with the replies, as far as we are concerned, were—

Did (1) (*a*) Dr. Marshall, or (*b*) Dr. Shaw sign his certificate negligently and without due care?—No.

2. Were the conduct, behaviour and appearance of the plaintiff at the times in question such as to induce the defendants to believe, and did they honestly believe, that she was a person of unsound mind and a fit and proper person to be taken charge of and detained under care and treatment? and were

the acts complained of done by the defendants, honestly acting upon such belief ?—Yes.

3. Was the plaintiff at the times in question of unsound mind and a proper person to be taken charge of and detained under care and treatment ?—Yes.

The jury took an hour to consider their judgment, and the judge said he agreed with their decision.

So the battle was won, but at a ruinous cost; for the doctors, though winning and having costs granted, will get little or nothing; and it behoves those of us who may be subjected to similar persecution in our turn, to help our brethren in affliction.

There are still several points to be referred to; first, as to what a certificate of lunacy should contain; and, next, as to the fact of its sufficing to satisfy the Commissioners in Lunacy being a ground for protection by that body. Surely no one ever would maintain that a certificate must contain all the facts of a case of insanity, and the more experience one has with the insane the more frequently does one meet with patients who are dangerous to themselves and to society, but whose suspicion makes them hard to describe in a certificate. The certificates of Drs. Marshall and Shaw were not strong of themselves, but there were other facts which made up for this.

It is sad to find two London physicians willing to support a prosecution against other medical men, and we do not think that the explanations given in the weekly medical press by these two medical men can be considered as at all satisfactory.

That the Chief Clerk of the Commissioners came down and produced an important letter was highly satisfactory, but the most pleasing part was to notice that the judge saw clearly the danger of such prosecutions to the public, and the leading daily papers were equally strong in defending the doctors. This is quite a change in the aspect of affairs, and we may hope for better times, when doctors will be able to act for the good of their clients without risk to themselves.

Superannuation Allowances of Asylum Officers.

The Local Government Bill now before the House of Commons, which proposes to transfer the management of the County Asylums from the Magistrates to the elected County Councils, will certainly have, if it becomes law, an important influence on these institutions.

The officers of these asylums, especially those situated in agricultural counties, have been greatly alarmed lest this

change should result in their being deprived of all prospect of pension, and even in more favoured counties some anxiety has been felt on this score.

These fears are based on the fact that great opposition has been made in several counties to recent pensions of medical officers, this opposition coming from the guardian class, from whom it is anticipated the future County Councils will be drawn.

The result of this feeling has been that a large number of asylum officials have arrived at the conclusion that their interests would be better protected by an assured pension scale, to obtain which they would be willing to sacrifice some of the advantages of the existing pension clauses.

These views prevailed with the Pensions Committee in issuing the recommendation for the adoption of a modified civil service pension scale.

The discussion at the recent general meeting of the Association showed, however, that there was considerable difference of opinion and want of unanimity in regard to the adoption of any such proposition.

That Mr. Ritchie would introduce into his Bill any serious alteration of the superannuation clauses is not to be expected, and the utmost that could be anticipated from him would be some slight and easily made alteration which should tend to safeguard existing interests. Such a proposition has already been made by the suggestions of the Parliamentary Committee that a power of appeal to the Treasury should be given in regard to pensions similar to that proposed in regard to questions of compensation.

If, however, a more considerable change in the superannuation system is desirable, the probability that such a change might be introduced in the Lunacy Law Amendment Bill, although very small, is still somewhat more hopeful.

Unanimity amongst asylum officials in regard to what alteration should be made, in face of the impending changes, is essential for making any approach to the legislative authorities.

It is to be hoped that the deliberations of the Parliamentary and Pensions Committees in the various schemes and suggestions which have been brought forward may end in formulating some plan by which existing officers may be protected from unjust treatment, and future officials may be entitled to that liberal treatment which the arduous, anxious, dangerous, and specially wearing character of their work necessitates, and which have been recognized by past legislative enactments.

The efforts of the Association may, however, fail in obtaining any satisfactory modification of the existing legislative proposals, and in that event the members of the Association should continue to use the interest they possess with numerous members of the legislative bodies to introduce a Bill which should remove the present state of uncertainty which militates against the best interests of asylums and the insane.

Among the many indications of the keen interest felt by those most affected in the operation of the Local Government Bill, should it become law, is the action recently taken by the Committee of Visitors of the Derby County Asylum. The following is a resolution passed at their meeting on May 5th, Sir Henry F. Every, Bart., in the chair :—

That in the opinion of this Committee it is desirable that all existing officers should have an assured right to a pension on a scale not lower than that provided by the rules relating to Her Majesty's Civil Service.

A similar resolution was passed by the Committee of Visitors of the West Riding Asylum, Wakefield, on April 26th last, and another to the same effect was adopted by the Committee of the South Yorkshire Asylum, Wadsley, on April 30th.

The following petition was unanimously signed by the staff of officers, attendants, and resident servants of the Derby County Asylum, and forwarded to the President of the Local Government Board, on May 2nd.

To the Right Honourable Charles Thompson Ritchie, M.P., President of the Local Government Board.

The petition of the undersigned officers, attendants, and servants in the Derby County Asylum, humbly showeth —

That our position at present as regards prospect of pension is unsatisfactory, owing to its uncertainty, and to the extreme inequalities which prevail ; whilst in the new County Government Bill no clause appears which is likely to remedy this state of things ; that our duties are irksome, depressing, and trying to temper and health ; that they involve more or less continuous responsibility, anxiety, and bodily risk ; that the hours of duty in an asylum are long, and the pay in most cases is by no means proportionate ; that a prospect of pension is one of the greatest inducements to long and faithful service.

We therefore pray that, in our interest and for the advantage of the public, you will insert in the County Government Bill a clause which will ensure to us a fixed scale of pension similar to that which is granted to civil servants under 22 Vict., cap. 26, with the same qualifications and additions as therein specified.

We further pray that you will insert in the County Government Bill a clause which will enable officers, attendants, and servants when they are transferred, as often happens, from an asylum in one county or borough to an asylum in another county or borough, and when their approved service has been of not less than three years' duration (as proposed in the Police Constables Superannuation Bills of 1885 and 1887), to reckon such transferred service as continuous service which shall be counted (for the purpose of computing their pension, superannuation allowance, or gratuity) for length of service as if all such asylums had constituted only one asylum (see Section 60 of the Lunacy Acts Amendment Bill, 1888, which only applies to asylums in the same county).

And your petitioners will ever pray, etc.

At a special general meeting, held at Bethlem Hospital, on May 16th, a lengthened discussion took place on the subject of the clauses of the Local Government Bill, affecting pensions, and the following resolutions were passed :—

That the action of the Parliamentary Committee * in reference to the Local Government Bill be approved, and their recommendation be adopted and acted on by each member of the Association.

That the Parliamentary Committee should, if possible and desirable, interview Mr. Ritchie, Sir E. Clark, and the Lunacy Commissioners to see what terms can be obtained to protect the pensions of the present asylum officials, and to obtain a fixed scale of pensions for the future.

The following answer has been received to an application for the reception of a deputation by Mr. Ritchie :—

Local Government Board,
Whitehall, S.W., 18th May, 1888.

Sir,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 9th instant, and to state that the President regrets that his numerous engagements prevent his receiving the proposed deputation to confer on the subject of certain provisions of the Local Government Bill ; but if it is desired to make any written representations beyond those contained in your letter of the 16th ultimo, the President will be glad to receive and to consider them.

I am, Sir,
Your obedient Servant,
S. B. Provis,
Assistant Secretary.

To Henry Rayner, Esq., M.D.,
Hon. Gen. Sec. to the Medico-Psychological Association,
The County Asylum, Hanwell, W.

* A letter, dated May 16th, was addressed by the Hon. Sec., Dr. Rayner, to Mr. Ritchie, embodying the objections of the Parliamentary Committee to certain clauses in the Bill.

Lunacy Acts Amendment Bill. The Provision for Idiots and Imbeciles.

The Parliamentary Committee of the Association has renewed the attempt to modify some of the objectionable clauses contained in this Bill. The "Observations and Suggestions" of last year have been somewhat amplified, and forwarded to all the members of the House of Commons, the Bill having passed the House of Lords.

A reference to this Journal for July, 1887, will show the changes made in this document by the Committee. The "Suggestions" now issued will be found at the end of the current number. It may, however, be convenient to add here the paragraphs which have been added.

Clause 41.* The whole of this Clause is considered to be objectionable, for though every patient who should have power of appeal would be able to learn that he may communicate as directed in Clause 41, yet the practical result would be that, as a rule, it would only act as an incentive to the restless and distinctly insane to write and appeal, and would be a constant cause of unrest, and thereby hinder recovery.

Clause 57, sec. 2.† After the words "as the Committee of Visitors may consider proper," strike out the rest of the paragraph, and substitute instead thereof the following words: "shall be applied by the Committee of Visitors to the reduction of the rate of payment for maintenance charged in respect of the poorest private patients." This would assist in removing the great anomaly that, whereas ample provision is made for "pauper" patients and for "private" patients able to pay more than the ordinary rate of maintenance, no provision is made for the large intermediate class of non-pauper cases whose friends are able to pay the

* Refers to posting up a notice as to letters and interviews.

† "An account of the amount by which the sums charged for private patients received in the asylums exceed the weekly charges for pauper lunatics, sent from or settled in any place, parish, or borough which has contributed to provide the asylum, shall be made up to the last day of each year, and the surplus, if any, after carrying to the building and repair-fund such sums, and providing for such outgoings and expenses as the Committee of Visitors may consider proper, shall be paid to the Treasurer of the county or borough to which the asylum belongs, or in the case of an asylum provided by several counties or boroughs, to the several Treasurers of such counties or boroughs in the proportions in which they have contributed to the asylum [and shall be applied in aid of the rates in such manner as the justices of the county or the Council of the borough may determine]."

whole, or the greater portion, of the cost of their maintenance in a county asylum.

Clause 59.* It is suggested that the words "pauper or private" should be inserted before "idiots or patients suffering from any particular class of mental disorder," so as to make it clear that the provision for these cases is to be *pari passu* with that authorized for lunatics proper. Also, that the following paragraph be added to this section:—"The provisions contained in sub-section 2 of Clause 57 shall apply to 'separate asylums' provided under this section."

Clause 74.† It is objected that under this Clause a medical officer will be expected to serve two masters, the County Committee and the Lunacy Commissioners. Circumstances may occur to render it impossible (from other causes than those specified) for him to send off at once to the latter the report, &c., required, and yet he is liable to a penalty of £10 for each day during which the return is delayed.

A few minor changes in the Circular of 1887 will be found, but the foregoing are the main additions.

In this connection we may state that the effort made by a committee of gentlemen in London to induce the Charity Commissioners to apply a portion of their surplus funds to making provision for idiots above the pauper class has failed, an official communication having been received from their Secretary that they were not prepared to accede to the proposition in question. This unfavourable response to the application, makes it all the more important that the Lunacy Bill should contain a distinct provision for carrying out so important an object.

* "The powers conferred by the Lunatic Asylums' Act, 1853, upon the justices of counties and quarter-sessions boroughs, for providing asylum accommodation shall extend to authorize the justices of any such county or borough, either alone or in union with the justices of any other such county or borough, or counties or boroughs, to make provision for the reception of pauper and private patients together or in separate asylums, and to provide separate asylums for idiots or patients suffering from any particular class of mental disorder."

† "Any person who makes default in sending to the Commissioners or any other person any return, report, extract, copy, statement, notice, or document, or any information within his knowledge or obtainable by him, when required so to do under this Act or any other Act relating to lunacy, or any rules made under this Act or in complying with the said Acts or rules, shall for each day or part of a day during which the default continues, be liable to a penalty not exceeding ten pounds, unless a penalty is expressly imposed by this or any other Act for such default [penalties remitted if the default arises from mere accident or oversight]."

PART II.—REVIEWS.

A Manual of the Diseases of the Nervous System. By W. R. Gowers, M.D., F.R.S. J. and A. Churchill. 1888.

This volume of nearly a thousand pages concludes Dr. Gowers' work on the diseases of the nervous system. The complete treatise, in two volumes, will be welcomed even in these days of many books, for the writer is able to write with the authority of a master, and his reputation is as established for breadth of view and clearness of exposition as it is for thoroughness.

Some of the ground travelled over in his smaller volume on the diagnosis of diseases of the brain is necessarily retravelled, but the difference between the exhaustive treatise, the work of reference, and the clinical manual is at a glance sufficiently apparent. Numerous illustrations enrich the work; these, though somewhat pale and washed-out in appearance, indicate very clearly the requisite points. The plan of the work is thoroughly systematic and methodical: the structure and functions of the brain introduce the general symptomatology of brain-disease, and then the special diseases are begun, the cranial nerves coming first. The outworks being thus taken, the citadel itself is attacked; and again, according to the scientific method, the investments are first proceeded with, viz., the membranes of the brain. Organic diseases of the brain-substance follow, and are arranged on a mixed clinico-pathological plan—thus chapters on hæmorrhage and softening are interpolated between the chapters on hyperæmia and inflammation. It is rare that one fixed scientific plan can, in medicine, be adhered to, and the arrangement adopted by Dr. Gowers is probably as good as could be suggested. Abscess of the brain is considered in a separate chapter, and on clinical grounds, again, we find intracranial tumours and intracranial aneurisms placed next. Degenerations of the brain precede the concluding section on general and functional disorders.

It is difficult to select from so large a material for individual examination—it is a case of *l'embarras des richesses.* The subject of localization receives, of course, full consideration. In regard to this the relation of the cortex cerebri to the skull is, from a surgical point of view, of great importance, and Dr.

Gowers quotes the rules given by Horsley and by Reid for determining the position of the principal convolutions. On p. 14, whilst discussing cortical localization, Dr. Gowers refers to certain precautions to be observed if reliable results are to be obtained. Nothnagel, he remarks, has rightly insisted on the necessity of observing these same. We must here quote:—"It is only the lasting symptoms which can be regarded as related to the damaged region of the brain, because an acute lesion frequently causes, for a time, symptoms of much wider range than strictly correspond to the destruction. Such wide symptoms are due to pressure, secondary vascular disturbance, or irritative inhibition." He adds: "Only such symptoms as have lasted some weeks can be regarded as having real significance," this time being necessary for the above "indirect" effects to pass off. Next he points out that the tolerance of nerve structures for disease which develops gradually is a fact always to be borne in mind, especially when we are excluding definite areas of the brain on the grounds of negative evidence. And then that "there are some functions of the cortex which elude localization for another reason," viz., "because their loss is quickly compensated by the other hemisphere." This has reference to the working of associated centres. In such cases Dr. Gowers says: "Before the indirect effects of a lesion have passed away, and the persistent symptoms can be admitted 'into court,' the loss of the movements referred to has passed away because the other hemisphere has supplied the lost function."

One has but to state these propositions for it to become apparent how exceedingly important they are. For this reason we have quoted them; they should be learned by heart by all cerebral localizers and kept prominently before the mind.

The diagrams belonging to this section represent the several centres by shaded areas with ill-defined margins; the idea is a good one, accentuating as it does the fact that these functional areas are not sharply delimited—indeed, we learn, what we are not wholly unprepared for, that adjacent centres may overlap more or less, *e.g.*, those of the arm and leg; see p. 16.

As to the precise nature of the motor centres so-called, Dr. Gowers very rightly maintains that from the stand-point of practical medicine we may with advantage keep the name motor, for "it is certain that movements are produced by their stimulation in man as well as in animals;" and "it is certain also that the fibres which conduct motor impulses to the cord spring from them and pass directly downwards." These

remarks bear on the theory advocated by Munk, and recently discussed in this country, viz., that "conceptions of movements" first arise in these centres before the movements themselves are initiated. This theory smells somewhat of the lamp, and suggests the study rather than the ward.

The association of centres sensory and motor, the double representation of centres in the two hemispheres, and the doctrine of compensation involved in these teachings, are each touched upon, and are sufficiently tempting; they must, however, be passed over.

We must now touch at haphazard on a few points relating to special diseases. Under the heading pachymeningitis we observe that Dr. Gowers records as undecided the opposing views of Virchow and Prescott Hewett as to the pathology of the affection. It is not possible to discuss fully the question here, and Dr. Gowers does not furnish an excuse for so doing by himself attacking the problem, but we would venture to say that Prescott Hewett's view has always seemed to us the truer, and it is of interest to see it readvocated by Huguenin. The absence of thickening of the dura mater proper, the polish on the surface of the same when the false membrane is raised, and the apparently mechanical limitations of the false membrane, *e.g.*, its abrupt cessation at the falx; these, in the few specimens recent and preserved which have come under our notice, are among the reasons which have served to favour Prescott Hewett's view.

Under the head of abscess of the brain we noted the statement (p. 438) that the influence of local causes other than ear-disease shows a marked proclivity to affect the right rather than the left hemisphere. The statistics given bear this out, but surely the numbers are too few to allow of any generalization of this kind. Moreover, even if we accept as proved that the right hemisphere does suffer more often, would not the proclivity have to be referred to the tegumental structures, bony and other (which in the cases cited have been more often affected on the right than on the left side), and not to the hemisphere. The greater proneness to disease of the less worked hemisphere would be an unusual pathological fact.

We observe that Dr. Gowers throws no light on the mode of occurrence of the suppuration in those cases where apparently healthy brain substance separates the abscess cavity from the diseased bone. The cases of successful trephining of the brain from abscess following ear disease by Barker and by Greenfield are recorded.

In the final section on general and functional diseases the metallic poisonings are introduced, also alcoholic poisoning, acute and chronic. Mental diseases are purposely omitted, but one disease, general paralysis of the insane, is incidentally mentioned here and there, *e.g.*, in connection with lead poisoning and chronic alcoholism. We think, with reference to this, that the striking similarity of some cases of lead poisoning, and especially of chronic alcoholism, to general paralysis ought to have been clearly pointed out and dwelt upon. So close is this similarity that the most experienced are in some cases unable to decide, and are compelled to await the course of the disease, towards improvement or the reverse, before pronouncing the diagnosis.

Dr. Gowers does, indeed, state the similarity, but he does not state it strongly enough.

On page 953 the term narcolepsy is introduced to describe a condition in which there is a "tendency to fall into a sound sleep for a short time, usually for a few minutes, rarely for an hour or more. The condition is distinguished from trance by the brevity of the attacks of sleep and by their strong tendency to recur." The term is an unhappy one, since we are prone to associate narcosis with some form of poison within the system, and is the less fitted here for its purpose as the word narcomania is already in use to describe a morbid condition the result of inebriety.

One feels strongly tempted to apologize to the author when a work of the magnitude and importance of that before us receives the inadequate consideration of the usual review, but to do real justice would require more space than can possibly be granted. The labour entailed by this work must have been enormous, but it is sure to bear good fruit. We can most sincerely commend it to the serious study of all those who have their work at heart.

The Life of Percy Bysshe Shelley. By Edward Dowden, LL.D. Two Vols. Kegan Paul, Trench, and Co. London, 1887.

(*Concluded from p.* 113.)

We may here accentuate the marked characteristic of Shelley's mind which allowed of the transition from the intense and excessive admiration of an individual to the other extreme of disgust and abhorrence. This is fully recognized by his biographer. "It is one of the infirmities of Shelley's

character," he writes, "that, from thinking the best of friend or acquaintance, he could of a sudden and with insufficient cause pass over to the other side and think the worst" (Vol. ii., p. 347). In this feature he was like the emotional girl, who rapidly forming new acquaintances, thinks them possessed of all the virtues and none of the vices of mankind, but finds at last that they are not angels, and not content with this discovery declares them to be demons.

Claire Clairmont, so kindly treated by Shelley, became a thorn in the side of Mary, and there was evidently no inconsiderable danger lest Shelley's admiration of Claire should prove as troublesome to Mary as his one time devotion to Miss Hitchener was only too well calculated to cause an estrangement between him and Harriet. After leaving the household Shelley wrote to her in the kindest terms.

Such words might have seemed to Mary needless or excessive in their effusion, and they should be seen by Claire alone. The first two or three letters of Shelley to Claire, written when the sense of her desolate position was keen with him, contain utterances which, if we did not know how ardently Shelley gave himself away in friendship, might be regarded as the speech of a lover (Vol. ii., p. 350).

Shelley wrote:

My dearest Claire,—I wrote to you a kind of scroll the other day merely to show that I had not forgotten you, and as it was taxed with a postscript by Mary it contained nothing that I wished it to contain. . . . Keep up your spirits, my best girl, until we meet at Pisa. . . . You know, whatever you shall determine on, where to find one ever affectionate friend, to whom your absence is too painful for your return ever to be unwelcome (p. 355).

In the above quoted letter he speaks of the violent "spasms" to which he was subject. These were supposed to be due to renal disease, probably calculi. Vaccà, however, who considered the disorder nephritic in character, held a different opinion after Shelley's death. Whatever may have been the ailment, the interest lies in the statement he proceeds to make to Claire: "Nervous irritability which the pain leaves is a great and serious evil to me, and which, if not incessantly combated by myself and soothed by others, would leave me nothing but torment in life" (p. 356). It seems very probable that he laboured under suppressed gout, and that this aspect of his mental characteristics was due to its influence.

Shelley becomes fascinated with another lady, Emilia

Viviani, a member of an ancient house of Pisa, the daughter of a Count Viviani, and confined for several years in a convent. Shelley pitied her on account of her loss of liberty. She seemed more ideal than the every day companion of his life.

> Mary, after years of closest union, had become a good portion of his own life; she was Mary Shelley, daughter of William Godwin, known in all her strong points and weak points of character; a very definite, concrete being. Emilia, scarcely known to him at all, whose life was not intertwined and intertwisted with his own life—Emilia, beautiful, spiritual, sorrowing, became for him a type and symbol of what Goethe names "the eternal feminine," a type and symbol of all that is most radiant and divine in Nature, all that is most remote and unattainable, yet ever to be pursued. . . . Such illusions may be of service in keeping alone within us the aspiration for the highest things; but assuredly they have a dangerous tendency to draw away from ordinary events and from real persons some of those founts of feeling which are needed to keep fresh and bright the common ways and days of our life (p. 378).

It is particularly dangerous when the "real person" is the wife from whom some of these founts are thus drawn away. Alas, when this perfect ideal, like Miss Hitchener, fell to the level of poor humanity, it is not surprising that Shelley felt humiliated, as Dr. Dowden says, in remembering how he had allowed his imagination to dupe him.

It is interesting to find from a note made in the winter of 1820 that Shelley was readily affected by so-called mesmerism. This was tried in order to relieve him of the attacks of paroxysm of pains to which he was subject. One would like to have possessed the Italian verses which he wrote in the mesmeric sleep, and which Medwin in his biography of Shelley says were faultless. These experiments were discontinued because they appeared to revive the tendency to sleep-walking which the poet had manifested when a boy at school. During artificially induced somnambulism Shelley was asked, "How may your malady be cured?" and the unconscious sleeper replied, like a Delphic oracle, "What would cure me, that would kill me"—a reply which Medwin declares had reference to lithotomy. Shelley's poem, "The Magnetic Lady to her Patient," records this circumstance. The susceptibility to the subtle influences which are comprised in mesmerism, or more correctly hypnotism, may fairly be connected with that side of Shelley's character which was associated with his special form of genius and of poetry. That form was, in fact, a condition

approaching that of ecstasy. A French writer, M. Chasles, speaks in raptures of

the pale blue eyes of Shelley, which shone with a sweet and perpetual ecstasy ; his extremely attenuated features, devoid of energy and concentration, reflected I know not how sweet, resigned, seraphic, and yet resolute expression, that of St. John the Baptist, or of the angel of whom Milton speaks—

> " Beau, calme, bienveillant, qui tenait dans sa main,
> Le rameau couronné de flammes rougissantes."

. . . Mystical pantheist, Platonist led astray in the dogma of Spinosa, he consumed his young life in the hallucinated adoration of the forces of Nature, in an ardent revolt against human laws, social customs, and the dogmas of Christianity. Ecstasy had already consumed this frail existence when he perished in a tempest and gave back to earth those material elements of the organism which he had taken from the Deity Himself (p. 216).

M. Chasles* has, in these remarks, shown his insight into the character of Shelley on its ecstatic side.

The amount of reading Shelley got through, in addition to his own writing, his acquirement of languages, and the continuous interest he took in what he regarded as the advance of freedom of thought and action, cannot fail to strike the reader of his letters. The lists of works which he and Mrs. Shelley perused are surprising. The following passage, written in 1821 to Claire Clairmont, describes a very exceptional state of things :—

I am employed in nothing. I read, but I have no spirits for serious composition. I have no confidence, and to write in solitude or put forth thoughts without sympathy [*i.e.*, he thought Mary lacking in this quality] is unprofitable vanity. Tell me, dearest, what you mean to do, and if it should give you pleasure come and live with us (p. 454).

Referring to Shelley's sobered but strengthened love for Mary, Dr. Dowden observes that

her moods of dejection, the disturbance of serenity in one whose nature was deep and strong, caused him disturbance and pain, from which he instinctively sought protection. He was at times tempted to elude difficulties rather than with courage to meet and vanquish them ; and some, indeed, may have been unvanquishable. For his own sake, perhaps unwisely, and for hers, he avoided topics which could

* " Études sur la Littérature et les Mœurs de l'Angleterre au xix. Siècle." 1850.

cause her agitation, or bring to the surface any imperfections of sympathy that existed between them (p. 468).

Mary had wisely concealed whatever annoyance she felt at Shelley's irritating unwisdom in his exaggerated admiration of Emilia.

A difficulty, however, in Shelley's life really serious had arisen through the misunderstandings between Mary and Claire (p. 470).

While entertaining goodwill towards her,

Mary did not love and cherish Claire—the wronged and unhappy woman—in a like degree with Shelley ; and Shelley would not, or could not, bring his warm affection for Claire under the observation and comment of Mary's more critical judgment. Here was a real and serious failure of sympathy between husband and wife (p. 470).

The biographer attributes this chiefly to Shelley's lack of courageous frankness. Writing to Gisborne in 1822 Shelley says —

Italy is more and more delightful to me. I only feel the want of those who can feel and understand me. Whether from proximity and the continuity of domestic intercourse, Mary does not. The necessity of concealing from her thoughts that would pain her necessitates this, perhaps. It is the curse of Tantalus that a person possessing such excellent powers and so pure a mind as hers should not excite the sympathy indispensable to their application to domestic life (p. 472).

It is impossible to feel surprised that Mary at times felt somewhat jealous, and probably feared that she might occupy the same position as the once-loved woman, Shelley's affection for whom she had destroyed. Dr. Dowden states that Trelawny charged her "with having embittered seasons of Shelley's life with her womanly jealousy" (*l.c.*).

About this period Shelley wrote the lines to Mrs. Jane Williams —

When I return to my cold home, you ask
  Why I am not as I have ever been.
You spoil me for the task
  Of acting a forced part in life's dull scene—
Of wearing on my brow the idle mask
  Of author, great or mean,
In the world's carnival. I sought
Peace thus, and, but in you, I found it not.

Shelley sent these lines to John Williams, with the instruc-

tion that they were to be shown only to Jane. Several of his references might have hurt Mary Godwin's feelings.

We now come to the last days of the chequered life of this wayward genius. Shelley's summer residence was situated on the Bay of Spezzia, Cassa Magni. The inhabitants are represented as uncivilized as the South Sea Islanders. An old man at Lerici, who recollected Shelley, told Mr. Leifchild, who told Rossetti, that wherever there was sickness in a house in the neighbourhood there Shelley would be found nursing and advising (p. 498). A boat which was being built for Shelley and his friend Williams was expected daily. A curious incident, interesting psychologically, occurred at this time, Shelley's nerves being considerably affected by the recent death of poor Claire's infant, Allegra, and the heartless conduct of Byron, which prevented her seeing her child. Williams made the following entry in his journal under May 6th, 1822 :—

After tea, walking with Shelley on the terrace, and observing the effect of moonshine on the waters, he complained of being unusually nervous, and, stopping short, he grasped me violently by the arm and stared steadfastly on the white surf that broke upon the beach under our feet. Observing him sensibly affected, I demanded of him if he were in pain. But he only answered by saying, "There it is again—there!" He recovered after some time, and declared that he saw, as plainly as he then saw me, a naked child (Allegra) rise from the sea, and clap its hands as in joy, smiling at him. This was a trance, that it required some reasoning and philosophy entirely to awaken him from, so forcibly had the vision operated on his mind. Our conversation, which had been at first rather melancholy, led to this; and my confirming his sensations by confessing that I had felt the same gave greater activity to his wandering and ever-lively fancy (p. 500).

The boat was now Shelley's delight. One day he induced Mrs. Williams and her children to accompany him in a sail. When in deep water, resting on his oars and lost in reverie, he suddenly exclaimed, "Now let us together solve the great mystery." Mrs. Williams, equal to the occasion, prevailed upon the eccentric boatman to row to the shore, and on the first opportunity jumped out of the frail barque with her babes, the boat having capsized. Mrs. Williams's exclamation must not be omitted: "Solve the great mystery? Why, he is the greatest of all mysteries. Who can predict what he will do?" (p. 503).

Here we may refer to his desire to have prussic acid by him

should occasion, in his opinion, require its use, in order to avoid needless suffering. Writing to Trelawny June 18, 1820, he says, "I need not tell you I have no intention of suicide at present, but I confess it would be a comfort to me to hold in my possession that golden key to the chamber of perpetual rest" (p. 507). He was pestered at this time, as indeed he had so constantly been, with the impecuniosity of his wife's family. "The Godwins are for ever plotting and devising pretext for money, none of which, however, they get; first, because I *can't*, and secondly, because I *won't*" (letter from Shelley to Gisborne, April 1822). At this time Shelley estimated his debts at £22,500, which he thought might be reduced to £14,000 or £15,000 (p. 509). Mary had very different feelings for their residence on the Bay of Spezzia. "No words can tell you," she afterwards wrote to Mrs. Gisborne, "how I hated our house and the country about it. Shelley reproached me for this. His health was good, and the place was quite after his own heart" (p. 511). Mary had a severe illness, and Shelley was devoted to her in her critical condition: in fact, his prompt application of ice appears to have saved her life. He afterwards suffered from the strain. In his journal Mr. Williams enters (June 23rd), "During the night Shelley sees spirits, and alarms the whole house." Mary herself wrote —

While yet unable to walk, I was confined to my bed. In the middle of the night I was awoke by hearing him scream, and come rushing into my room. I was sure that he was asleep, and tried to waken him by calling on him, but he continued to scream, which inspired me with such a panic that I jumped out of bed and ran across the hall to Mrs. Williams's room, where I fell through weakness, though I was so frightened that I got up again immediately. She let me in, and Williams went to Shelley, who had been wakened by my getting out of bed. He said that he had not been asleep, and that it was a vision that he saw that had frightened him. But, as he declared that he had not screamed, it was certainly a dream and no waking vision. What had frightened him was this. He dreamt that, lying as he did in bed, Edward and Jane came into him. They were in the most horrible condition—their bodies lacerated, their bones starting through their skin, the faces pale, yet stained with blood. They could hardly walk, but Edward was the weakest, and Jane was supporting him. Edward said, "Get up, Shelley; the sea is flooding the house, and it is all coming down." Shelley got up, he thought, and went to his window that looked on the terrace and the sea, and thought he saw the sea rushing in. Suddenly his vision changed, and he saw the figure of himself strangling me. That had made him

rush into my room. Yet fearful of frightening me he dare not approach the bed, when my jumping out awoke him, or, as he phrased it, caused his vision to vanish. All this was frightful enough, and talking it over the next morning he told me that he had had many visions lately. He had seen the figure of himself, which met him as he walked on the terrace, and said to him, "How long do you mean to be content?" No very terrific words, and certainly not prophetic of what has occurred. But Shelley had often seen these figures when ill (p. 516).

Mrs. Shelley then passes from the poet's visions to those of Mrs. Williams, which are worth adding, for they seem to be inextricably bound up with this mysterious being.

But the strangest thing is, that Mrs. Williams saw him. Now Jane, though a woman of sensibility, has not much imagination, and is not in the slightest degree nervous, neither in dreams or otherwise. She was standing one day—the day before I was taken ill—at a window that looked on the terrace with Trelawny; it was day; she saw, as she thought, Shelley pass by the window, as he often was then, without a coat or jacket; he passed again. Now, as he passed both times the same way, and as from the side towards which he went each time there was no way to get back except past the window again (except over a wall twenty feet from the ground), she was struck at seeing him pass twice thus, and looked out, and seeing him no more, she cried, "Good God! can Shelley have leapt from the wall? Where can he be gone?" "Shelley?" said Trelawny; "no Shelley has passed. What do you mean?" Trelawny says that she trembled exceedingly when she heard this; and it proved, indeed, that Shelley had never been on the terrace, and was far off at the time she saw him (Vol. ii., p. 516).

Medwin states, on Byron's evidence, that Shelley thought one day that he saw a figure wrapped in a mantle, which lifted up the hood of his cloak, and revealed the phantasm of himself, saying "Siete satisfatto?" He adds that a similar incident occurs in a drama attributed to Calderon which Shelley had read. Byron also stated that some of Shelley's friends, while together one evening, distinctly saw Shelley, as they thought, walk into a wood at Lerici, when, as was afterwards proved, Shelley was in quite another place.

That Shelley had visual hallucinations of a remarkable kind, including the subjective image of his own body, is thus established on good authority. The vividness of the nocturnal vision is sufficiently shown by the horror which it excited in his mind. We need not in this place enter upon a considera-

tion of Mrs. Williams's vision of Shelley. A more remarkable example is recorded in the "Journal of Mental Science."*

We approach the final and fatal scene in the ever-changing and fitful phantasmagoria presented to us in the study of the career of the poet. On July the 8th, 1822, Williams, Shelley, and a youth, Charles Vivian, sailed in the *Aerial,* from the harbour of Leghorn, in spite of Captain Roberts' advice to wait till the weather was more settled. Everybody knows that the fragile boat capsized, or was run down, and that the bodies of the little crew were found some days afterwards on the beach. It was on the eighteenth that Shelley's body was cast on shore near Via Reggio in the Duchy of Lucca. They say, who have been restored to life after apparent death from drowning, that the past life is recalled with singular vividness; that the cells where memory is stored give up their dead, and that an involuntary judgment is passed upon the life, free from the distracting incidents of time and in the pure light of truth itself. If such an experience were Shelley's, it may be permitted us to imagine that the shade of Harriet, distressful yet forgiving, mingled with his revived sensations.

It was on the 16th of August that the body of the poet was cremated, the heart being, however, preserved as a relic, and the ashes placed in an oak box. The casket, in a coffin, was deposited in the Protestant Cemetery in Rome, the burial service not being omitted. In 1823 Trelawny bought a portion of the ground, and, in a tomb built near that of Caius Cestius, the box containing Shelley's ashes was laid. The inscription on the tombstone is well known—

PERCY BYSSHE SHELLEY,
Cor Cordium
Natus iv. Aug. MDCCXCII.
Obiit viii. Jul. MDCCCXXII.

Nothing of him that doth fade
But doth suffer a sea-change
Into something rich and strange.

* "One day, some years ago, two of my female relations were looking out of a window in Greenwich just opposite the hospital, and both thought they saw me pass and look in. One of them ran immediately to the door, but to her astonishment could see no one either up or down the street. At this time I was not expected, being, as all my family supposed, in Paris. But within a quarter of an hour I arrived at Greenwich. When I did enter I was called to account for the practical joke I was supposed to have played upon my relations by peeping in at the window and then concealing myself, and it was with some difficulty I convinced them that I had come straight into the house.

"Some years after this my wife and daughter (not the relations referred to

Having thus followed the main incidents of Shelley's life, so far at least as they bear upon his character as a psychological study, we proceed to draw the conclusions which we consider his life fairly warrants. It is impossible to avoid forming some opinion in regard to the morality of certain acts of his life, but this is not for the purpose of sitting in the seat of judgment upon Shelley. Far from it. Again, the poetical side of his nature is only of importance for our immediate purpose,so far as it shows what no one disputes, his remarkable genius. Of the relations of genius and madness much has been written, and a French alienist, Dr. Moreau (de Tours), wrote a book to prove that genius was a neurosis, while Flourens vigorously opposed his countryman's position. Our sympathies certainly go with the latter, who defines genius to be not a neurosis, but the power, carried to the highest degree, of thinking justly and of seizing the truth, if by this we understand the highest perfection in the particular art to which the man of genius leads us. In Shelley's case it was poetry, not mathematics, for which at college he had no capacity, nor for ethics, for the perception of which he was little fitted. But although genius is not a neurosis, it may be, and very frequently is, allied with a susceptible organism which endangers the sustained integrity of the brain.

Placing apart the poetic endowments of Shelley, we ask ourselves what we should think of his life-history if placed before us for an opinion of its psychological indications. Is the alienist physician ever consulted by anxious relatives in regard to similar lives? To this question we can have no hesitation in answering in the affirmative. Here we have, first of all, an insane inheritance. These hereditary influences Shelley did not escape. They were stamped upon his organization. If we say that Shelley had an insane diathesis, a strong predisposition to mental aberration, it does not follow that he was actually insane. We have seen that Shelley as a child was precocious, and that as an older boy some thought him crazy. At school he got into trouble and was expelled. At Oxford his tendency to run his head against a wall and to oppose constituted authorities was marked. His attack on time-honoured opinions and customs in religion does not

previously) were sitting in the dining-room, when they both saw an old lady enter at the gate and walk up to the steps leading to the front door of the house. My wife said to her daughter, 'What can bring old Mrs. C— out in such a flood of rain? Run and open the door, that she may not have to wait for the servant to answer the bell.' On opening the door there was no one there, nor in the garden." (A physician's narrative, April, 1880.)

appear in him, as in some, to indicate an earnest, conscientious conviction, when we witness the flippancy with which it was associated. One indication of this is his joking account of having taken the Sacrament quite unnecessarily at the time when he was proclaiming the necessity of Atheism. Then his rebellion against the paternal authority, and the coarse terms in which he characterizes his father without any adequate provocation, are noteworthy. Throughout he displays pubescent conceit, and an outrageous delight in traversing the ordinary habits of social life, home authority, and educational training and discipline. No one familiar with the parental and educational troubles which arise from the conduct of some one member of a family, in consequence of which the advice of the physician is sought, from a suspicion that a lad is in some way or other different from other lads, although in no way defective in intelligence, can fail to recognize in such a history as this a not uncommon and very painful case, which has caused perplexity and much mischief wherever the individual has been placed.

There is a twist in the character which nothing in the way of remonstrance or punishment has righted. There is something radically wrong in the organization, a constitutional instability, which approaches the domain of moral insanity, but which may in youth be so constitutional as not to allow of the term insanity which more properly describes or involves a change in the natural character. Of a piece with the contumacious conduct of the schoolboy and the collegian was the runaway match with Harriet Westbrook.

Notwithstanding some points of obscurity and slight contradictions and obvious errors in regard to particular dates, there is no difficulty in following the course of events from Shelley's first acquaintance with her to the time when she ended her life and its sorrows in the water, like Shelley himself, although not as in his case from an accident. We have seen how those who knew Harriet admired her beauty and were struck with her intelligence, and Shelley's sister, Helen, her schoolmate, retained in after life a lively remembrance of her good looks. Again, Shelley and Harriet were in full sympathy in regard to their religious and social opinions. There have probably been few runaway matches in which a permanent union might have been sustained with so much mutual happiness and affection. The opposite result in Shelley's case at once brings us to a striking and most unfortunate element in the psychology of the poet—his intense

susceptibility to the charms of the women with whom he chanced to meet. To use Claire Clairmont's own expression, he was inconstant. Having in Harriet beauty, intelligence, and one who loved and admired him (at any rate till he proved unfaithful to her), having also become the father of a little child (Ianthe), and having another in prospect, he becomes a visitor at Godwin's house. It appeared to Mrs. Godwin that there was danger of an attachment between him and her daughter Fanny from the "immense attentions he paid her," although she could hardly suppose that Shelley could transfer his love from such "a lovely wife" to her daughter. However, she sent her to Ireland or Wales to be out of the way. His attentions to Mary Godwin soon caused trouble in the family. Mrs. Godwin says that her husband remonstrated with Shelley, who declared it was only his manner. She also says that shortly after, Harriet, "a beautiful and charming young lady," came up from Bracknell suddenly, and saw Mr. and Mrs. Godwin alone. "She was very much agitated, and wept, poor dear young lady, a great deal, because Mr. Shelley had told her yesterday at Bracknell that he was desperately in love with Mary Godwin. She implored us to forbid him our house, and prevent his seeing Mary. We sympathized with her, and she went away contented, feeling, as she said, quite sure that, not seeing Mary, he would forget her" (Appendix, Vol. ii., p. 543). According to Mrs. Godwin, Shelley, after a short period, suddenly entered Godwin's shop, went upstairs, and looked extremely wild. When Mrs. Godwin begged him not to enter the schoolroom door he pushed her aside with extreme violence, and, walking up to Mary, exclaimed, "They wish to separate us, my beloved; but death shall unite us!" Shelley then offered her a bottle of laudanum, saying, "By this you can escape from tyranny." Taking a pistol from his pocket, he added, "And this shall reunite me to you." Mary (we still follow Mrs. Godwin's narrative) entreated Shelley, with tears streaming down her cheeks, to be calm and go home. She was too much confused to be likely to have a very clear recollection of what she said, but she believed her words were, "I won't take this laudanum; but if you will only be reasonable and calm, I will promise to be ever faithful to you." With this Shelley became composed, and left the house. Claire Clairmont says that Shelley bribed the porter in Godwin's shop to convey letters between him and Mary. Be this as it may, we know that Shelley requited Godwin's hospitality, and evinced his admiration for the philo-

sopher by eloping with his daughter. In estimating the character of men who act as Shelley acted we are not called upon to decide whether this or that view of marriage is the most reasonable, whether it is or is not well to have some legal ceremony performed when man and woman live together as man and wife, but the much broader and simpler question, whether it is kind or cruel to desert an affectionate and sympathetic wife and the offspring of their affection for another person with whom the husband falls in love. That men ought to be kind and not to be cruel is not peculiar to the Christian or any other creed, but is simply the universal voice of humanity. Buddha's doctrine is in accordance therewith :—

> There is "dark" Action : when one doth a thing
> Heedless of issues, heedless of the hurt
> Or wrong to others, heedless if he harm
> His own soul—'tis of Tamas, black and bad !*

Said he well :—"They who are not ashamed of what they ought to be ashamed, such men embracing false doctrines enter the evil path" (No. 316). And, again, "A broken vow, and hesitating obedience to discipline, all this brings no great reward"† (No. 312).

From a psychological point of view, it is a question of the responsibility of the individual who acts in a heartless manner. Was Shelley responsible for conduct the heartlessness of which no one can deny, however much we may desire to palliate it? While fully persuaded that Shelley's neurotic constitution was exceedingly pronounced, that his diathesis carried him to the very brink of an actual overthrow of reason, we cannot regard him as the subject of mental disorder at this period of his life to the extent which would carry with it a freedom from responsibility. We have read somewhere that Shelley could no more help doing what he did than a door can help being a door; but such a contention can only be maintained by those who hold that all men are automata and are the abject slaves of their organization, and, in fact, of its worse side. We should have held that Shelley was competent to execute a legal document or to make his will; and had he committed a forgery at this time we should have regarded him as culpable. We suppose everyone capable of forming an opinion would do the same.

* "The Song Celestial or Bhagavad-gitâ." Translated by Edwin Arnold, M.A. 2nd Edit., p. 160.

"† Buddhaghosha's Parables," by Captain Rogers, with introduction by Max Müller, 1870.

Then we have the strange visions. There can be no doubt that Shelley did labour, not under mere optical illusions, but under remarkable delusions. For the time being we must regard Shelley as of unsound mind, and no doubt acts performed during this condition were involuntary. Had he committed homicide under the influence of these delusions and hallucinations, he certainly would not have been responsible. When we read of Shelley beholding his own phantasm we are reminded of a case related by Dr. Wigan, the author of "The Duality of the Mind:"—

A gentleman possessed the power of placing *himself* before his eyes, and often laughed heartily at his *double*, who always seemed to laugh in his turn. This was for long the subject of a joke, but the result was lamentable. He became gradually convinced he was haunted by himself, or (to violate grammar for the sake of clearly expressing his idea) his *self*. This other self would argue with him pertinaciously, and to his great mortification sometimes refute him, which, as he was very proud of his logical powers, humiliated him exceedingly. He was eccentric, but was never placed in confinement or subjected to the slightest restraint. At length, worn out by the annoyance, he deliberately resolved not to enter on another year of existence; paid all his debts, wrapped up in separate papers the amount of the weekly demands, waited, pistol in hand, the night of the 31st of December, and as the clock struck twelve fired it into his mouth ("Journal of Psychological Medicine," 1849, p. 269).

De Quincey has described Shelley as a lunatic angel; Matthew Arnold has characterized him as an "ineffectual angel, beating in the void his luminous wings in vain." Mr. T. Hall Caine says:—"The atmosphere of his life was mainly the atmosphere of hysteria. When Shelley asked Mrs. Turner what her brother Alfred thought of his flight with Mary, the lady replied, 'That you have been playing a German tragedy.' 'Very severe, but very true,' Shelley answered. But it was a turgid English melodrama without a hero" ("The Academy," Dec. 4, 1886). Dr. Clouston, we have already seen, speaks of Shelley as a man "whose abilities were far above the average, but whose moral qualities and volitional powers were twisted and perverted."

To the same effect writes Mr. Caine:—"Even if it were right to exonerate Shelley from a charge of duplicity, or of most wilful self-deception in regard to Harriet, there is only one way of making what he did square with what he knew in other passages of his life, and that is by frankly saying that he was deficient in the moral sense" (*loc. cit.*). And Lowell,

while he does not appear to recognize a pathological condition of the moral sense, expresses himself in the following terms:— "No theorizing can sweeten desertion. . . . The lovers of Shelley as a man and a poet have done what they could to palliate his conduct. But a question of morals, as between man and society, cannot be reduced to any individual standard, however exalted. Our partiality for the man only heightens our detestation of the error. The greater Shelley's genius, the nobler his character and impulses, so much the more startling is the warning. . . . There is no stronger argument against the elective affinity scheme than the Memoirs of Mary Wollstonecraft. The Mormon polygamy is nothing more than a plant from the same evil seed sown in a baser soil, and is an attempt to compromise between the higher instincts of mankind, organized in their institutions, and the beastial propensities of sensualized individuals" ("The Poetical Works of Shelley, with a Memoir by James Russell Lowell," 1875).

We have, then—to sum up—an organization tainted with unfavourable hereditary tendencies—a brain which is spoken of again and again as remarkably small; an extreme instability and waywardness of mind, highly susceptible to the tender passion; and a state of the nervous system closely allied to that during somnambulism. Then we have the actual development of hallucinations and delusions. All this, however, being consistent with the highest flights of poetical genius; so strange may be the alliance between degeneration and development, between devolution and evolution in the same cerebral organization.

Inebriety, its Ætiology, Pathology, Treatment, and Jurisprudence. By Norman Kerr, M.D., F.L.S. London, H. K. Lewis.

This work is an attempt to cover the whole subject of Inebriety, its Forms, its Ætiology, its Pathology, its Treatment, and, lastly, its Medico-Legal aspects.

We regret to have to combat the fundamental proposition laid down by the author. Alienists are familiar with a form of mental disorder called "Folie Circulaire." We may properly regard its analogue among the sane, as reasoning in a circle. We regret to have to complain of this intellectual vice in the fundamental proposition laid down by the author, that inebriety

is a disease. But what is inebriety? Why, according to Dr. Kerr, it is found "only in those in whom either the habit of drinking, or some inherited or other cause, has set up the diseased condition, which may be defined as an overpowering impulse to indulge in intoxication at all risks" (p. 10). So defined, inebriety is, of course, a disease, but it is obviously begging the question, and brings us no nearer to a solution of the relation between intemperance and disease. Everyone would suppose from the importance attached to the fundamental proposition of the book that it is no mere platitude he is putting forward, but a bold statement admitting of difference of opinion, namely, that all intemperance is the result of disease. The following sentence illustrates our remark :—

> Is inebriety a disease? How anyone who has witnessed the career of a confirmed tippler ever doubted this for a moment is beyond my comprehension. Yet some deny that inebriety is ever a disease, and insist that it is only a moral vice.

In the first place, a confirmed tippler is introduced when the question is—and the real question ought to be—whether all who are intemperate are the subjects of disease. Again, as against those who believe inebriety to be always a disease are placed those who deny that inebriety is ever a disease, no intermediate view being recognized by Dr. Kerr. As the term "inebriates" is usually regarded as synonymous with "drunkards," great confusion arises. Dr. Kerr should have argued the question whether the latter are diseased persons, for there can be no possible sense in discussing the question whether the former are so, after inebriety has been defined in the manner already described. This want of logical thought and scientific definition is illustrated by the author's adoption of the "weighty words" of the Archbishop of Armagh—"in certain cases inebriety is a disease;" whereas Dr. Kerr has in the foregoing passage laid it down that it is a disease in *all* cases.

So much for criticism, unless, indeed, we express the opinion that the author is occasionally a little too flowery, as when speaking of the "magnificent spirits" who have fallen under the malign influence of drink, he adds, "not that their case is beyond hope. I have seen such a statesman, restored to his sound mind, become a model of sobriety. I have seen such a divine, freed by an appropriate treatment from his dread affliction, live to become a burning and a shining nephalian light" (p. 49). These nephalian lights would certainly attract

large congregations if the fact were announced that they would appear on certain occasions in certain pulpits.

We have at least five classes of inebriates presented to us. There is the common sort—often mentally deficient from birth. There is the recurrent drunkard who becomes such only when an attack of insanity occurs, he being perfectly sober during lucid intervals. Again, there is the criminal class, that steal or swindle to gratify the desire for intoxication. Others become inebriate through the poisoning of the system induced by alcohol. Lastly, there are the cases of habitual drunkenness with an inherited predisposition.

Four chapters are devoted to the ætiology of inebriety. The experience of the Dalrymple Home indicates that the greatest liability to the disease is during the period between 30 and 40 years of age. Jews are remarkably free from the vice, or, rather, disorder. Dr. Kerr states that he has never been consulted for inebriety in a Jew. Brahminism, and Buddhism, and Mohammedanism, as is well known, exert an enormous influence in the direction of temperance, but it must not be forgotten that to some extent opium and haschish have taken the place of alcohol. The negro races are more readily intoxicated than the whites, but are less liable to diseased conditions associated with drink. Red Indians are markedly liable, and the effect is more lasting than with the negro. As is well known, drink has decimated the Indian tribes. The Anglo-Saxons appear to be more prone to inebriety than other races. Dr. Kerr adds that the Russians, Swedes, Belgians, Germans, Swiss, French, and Austrians appear to be steadily coming up to the English and Americans. We are told that while clear, bright weather braces the nervous system, the east wind is deleterious to inebriates, while most to be dreaded are the dull, sultry days, when the air is heavy and charged with electricity. It is stated that it excites "the nervous fluid of the body," an expression which does not commend itself to a physiologist. The evil influence of malaria is not overlooked. As to climate, heat does not appear to be so favourable as cold to the development of inebriety. It is noticed that natives of Italy who had been temperate for many years have, on coming to England, fallen into drunken habits. Omnibus and cab-drivers appear to escape nervous diseases and inebriety in consequence of living in the open air. Under the causes of inebriety, head injuries are the most interesting, and we should have been glad if the author had given a number of cases. The one reported is that of a lady who sustained an injury to

the head from a fall involving fracture at the base of the skull.

> She was unconscious for seventy-five hours with blood discharging from ears and mouth, and no one anticipated her recovery. In a fortnight she was convalescent. In another week she was able to be out of doors, and returned drunk. This inebriety has continued ever since, some five years ago (p. 165).

Passing from the causes, we pass on to the pathology of inebriety. Dr. Kerr admits that we have no means of knowing if any tissue-changes precede or accompany the morbid cravings for stimulants. As to post-mortem appearances, the author allows that any morbid changes found in the brain, etc., are, generally speaking, the effect and not the cause of intemperance. He holds, however, that some appear to be so, which are associated with the alcoholic diathesis, although it is possible the individual has not been guilty of excesses during life. It must be confessed that the pathology of inebriety does not receive much light from the observations that have been hitherto recorded. The "diathesis" seems to us obscure.

The treatment of inebriety is discussed at great length, and a large number of vaunted remedies are dismissed as useless. He considers that no drug is more useful than cinchona bark. Special directions are given as to its preparation and exhibition. Of course the fundamental and radical cure is the removal of the poison. The Turkish bath and wet pack are of great use in soothing the nervous irritability consequent upon intemperate habits. As to temperance drinks, an unintoxicating port prepared by Wright, Mundy, and Co., Merton Road, Kensington, added to bark, is highly spoken of, but preference is given to the old-fashioned drinks—home-made lemonade and ginger beer. When it becomes necessary to place a patient out of the reach of temptation, the choice of a home becomes more important. Useful information will be found in this book as to the procedure necessary to obtain admission to a licensed retreat. It may be mentioned that since the opening of the Dalrymple Home 85 patients have been discharged; one of these has become insane, three have died, and nothing has been heard of 16. There remain 65, of whom 36 are doing well, two are improved, and 27 are not improved.

The chapter on the medico-legal aspects of inebriety is of interest, and will be found of use to the reader.

On the whole this book, although decidedly open to criticism, is one which medical men will find it an advantage to possess,

and, indeed, it is at the present time the only manual on the subject. Credit is due to Dr. Kerr for his long-continued and earnest exertions, at the cost of much self-sacrifice, to lessen the evils of intemperance, and to induce his medical brethren to exercise more caution in prescribing alcohol as a beverage. His influence has been undoubtedly great in the British Medical Association and elsewhere. It would be increased by cultivating a somewhat more logical and scientific tone of thought and mode of expression.

Animal Magnetism. By ALFRED BINET, and CHARLES FÉRÉ, Assistant Physician at the Salpêtrière. London, Kegan Paul, Trench, and Co., 1887. The International Scientific Series.

(*Concluded from p.* 98.)

A long chapter is devoted to hypnotic hallucinations, and is full of interest. The transformations of personality are very striking, and illustrate insane delusions. Retrospective hallucinations suggest grave possibilities in the hands of unscrupulous people. Thus a subject has been impressed with the notion that at a certain period of his life he was witness of the commission of a crime by a man in the same house. This became as real as if it had actually occurred. Well may the authors say "experimental suggestions of crime ought not to be lightly made, since we cannot always tell what traces they leave behind them" (p. 200).

Unilateral hallucinations are exceedingly curious. "The subject is told that there is a portrait on a blank sheet of paper, and, it is added, after opening the right eye only, 'You see this portrait?' Then this eye is closed, and the other is open, with the words, 'You no longer see anything.' On awaking, the hallucination remains localized in the right eye, with which the subject sees the portrait, while for the left eye the paper remains a blank" (p. 217). Dumontpallier has tried the experiment of asserting in the right ear that it is a fine sunshiny day, while another person asserts in the left ear that it rains. There followed on the right side of the face a smile, while on the left side the lip was drawn down in a way indicative of displeasure. Similar experiments have caused a most strikingly different expression on the two sides of the face. The authors have frequently conveyed the

idea to the subject that a white cardboard appears red to the right eye only; and on closing the left eye the intended effect is produced, but if both eyes are opened the colour appears pink—the hallucinatory red image being diluted by the sensation in the other eye of whiteness. It is thought by MM. Binet and Féré that those persons who have the power of visualizing are especially susceptible to visual hallucinations. Some very interesting observations are made on the bearing of the duplication of hypnotic images upon the reality of such subjective phenomena, and the well-established effect of a prism in causing two images to be seen is adduced. Experiments have been made with the microscope, and it appears that it enlarges the hallucinatory image; for example, a spider's foot is enormously magnified.

The conclusion is arrived at that the study of the remarkable phenomena of hypnotism prove that "hallucination is produced by an excitement of the sensory centres." It is maintained that hysterical achromatopsia does not arise from retinal lesion, but from disturbance of the cortex of the brain. Hallucination, it is held, has its seat in the centres receiving sense-impressions, such centres being excited. The following experiment made by our authors confirms the experience of the physiologist, Gruithuisen, who noticed that sometimes after dreaming of a violet spot he perceived a yellow one on a blue ground. Now, the hypnotic subject was told to look at a piece of white paper with a black spot in the centre. The suggestion was made to her that the paper was red or green. Another piece of paper with a black spot was then produced. When the subject's eyes were fixed on the spot "she exclaimed that the spot was surrounded by a coloured square, and the colour indicated was complementary to that which had been made to appear by means of suggestion. This complementary colour is the negative image left by the hallucinatory colour, it lasts but a short while, it is effaced, is lost, or dies, as the subject says, and it resembles in all respects a normal negative image." This experiment was repeated by Charcot during one of his lectures. The authors are warranted in maintaining that it would be unreasonable to suppose that a hysterical woman, who scarcely knows how to read or write, has the theory of complementary colours at her fingers' ends. "Our subjects have always answered correctly, and, which is more important, the correct answer has been given when the experiment was performed for the first time" (p. 254). This,

it is held, confirms the view that the memory of a sensation, or a hallucination, has the same seat in the brain as the original sensation. "It is always the same cell which vibrates." Again, it was found that in a cataleptic subject "a visual hallucination arouses the general sensitiveness of the eye, just as it is aroused by waving a real object before the subject's eye. This is, surely, a proof that visual hallucination excites the visual centres" (p. 259).

We have known an insane patient labouring under auditory hallucinations complain of the pain they gave her. Similarly, in a hypnotized subject, whose case is reported in this book, a hallucination of hearing produced local pain in the auditory meatus.

It is an interesting fact that the pupil dilates or contracts according as a visual hallucination is represented to the subject at a distance or near.

As to the action of the magnet, M. Féré argues strongly in favour of its producing "a faint electric current on the nervous system, and a continuous peripheral excitement," in opposition to those who explain these alleged effects by suggestion and expectant attention. To substantiate this position the authors state that they repeated the experiment on absolutely fresh subjects and obtained the same results; that the same effect was produced when the magnet was concealed, as also when it was made invisible by suggestion, and that nothing occurred when a wooden magnet was employed. It is admitted, however, that the effect of the magnet can be demonstrated only upon sensitive subjects.

We must devote a little space to the alleged cranio-cerebral topography of M. Féré. We give his own words —

This topography enables us to show that the point where pain is confidently indicated by the subject coincides, in the case of certain forms of hallucinations, with the sensory centres of the cerebral cortex, just as they have been established by the physiological and anatomical researches of late years. This is especially the case with the most important hallucinations, those of sight and hearing. Thus, in the transfer of a hallucination of vision, the point is a little behind and above the pinna of the ear, corresponding with the region of which the destruction causes blindness and hemianopia. It is, therefore, the posterior part of the lower parietal lobule.

In the transfer of a hallucination of hearing, the pain is seated in the centre of the space included between the anterior part of the pinna of the ear and the external, angular process of the frontal bone. The pain almost corresponds with the centre of the temporo-sphe-

noidal lobe, and approximatively with the region of which the destruction causes deafness. For the sense of taste, the point is above the external occipital crest, two centimetres from the median line. For the sense of smell, it is one centimetre above that line. These two latter localizations are not in agreement with the results of anatomical and clinical researches, and demand revision.

It may be asked how this coincidence should be interpreted; whether it proves that the physiological process in correspondence with the hallucination, is seated in the sensory centres of the cerebral cortex, behind the motor zone, or if we are only to regard it as one of the reflex acts, termed in physiology, an echo of pain. We cannot decide this question, since it is certain only that in the case of some subjects there is a special relation between some points of the external covering of the head and certain nervous centres of which the exact locality is still undefined. On this account the seat of the pain of transference must be estimated as an objective sign.

In another experiment on the same subjects we obtained a demonstration of the same relation between certain points of the hairy scalp and certain sensory functions. This was in experiments on partial somnambulism by MM. Féré and Binet. If the subject is thrown into a state of total catalepsy, and those points of the scalp which become painful during the transfer are then mechanically excited by the finger or by some other blunt object, curious results are produced. On exciting that point of the scalp which corresponds with the centre of vision, both the subject's eyes are affected by somnambulism; they lose their cataleptic fixity, and follow the movements of the fingers. If the point corresponding with the auditory centre is excited in a similar way, somnambulism affects the organ of hearing, and the subject, who up to that moment is completely insensible to the voice, hears the orders addressed to him and attempts to execute them, so far as his limbs, which are still cataleptic, allow.

We have seen what effect is exerted by the æsthesiogen on unilateral hallucinations; it displaces, and subjects them to a series of oscillations. When the hallucination is bilateral the result is different; it is not a transfer, but what we have termed a polarization by MM. Féré and Binet. Of this we will give some instances.

The usual hallucination of a bird perched on her finger was given to a somnambulist subject. While she was caressing the imaginary bird she was awakened, and a magnet was brought close to her head. After the lapse of a few minutes she suddenly paused, raised her eyes, and looked about her in astonishment. The bird which she supposed to be on her finger had disappeared. She looked about the room, and finally discovered it, since we heard her say, "So you leave me thus!" The bird presently disappeared again, and once more reappeared. The subject complained from time to time of pain in the head, at the point described by us as corresponding with the centre of vision (p. 268).

Several experiments are recorded to show the effect of the magnet upon real perceptions or suggested memory, and upon the production of complementary colours; but while not disputing the accuracy of the observations made by the authors, we know too well the subtle and misleading effects of unintended suggestions to feel altogether satisfied with the results given in this section. The chapter on "Suggestions of Movements and of Acts" is full of interesting examples, in regard to which there is no ground for scepticism. Their bearing on psychology is very obvious.

About fifty pages are devoted to a novel term, "psychical paralysis." This may affect sensation, imagination, memory, reason, will, motor power, &c. It is readily understood that suggestion can suspend sensibility. The bearing of this upon small operations has been recognized for some time. A surgeon dentist informs us that he frequently mitigates the pain of tooth extraction by assuring his victim that the operation will give no pain. In hypnotism nothing is more common than to cause local or general anæsthesia. The special senses are subject to the same influence. A hypnotized subject is assured that she cannot see A., and when awake is unable to do so, although hearing his voice. A hat is placed upon A.'s head, and it has the effect of being suspended in the air. The surprise is increased when A. takes off the hat and salutes the subject with it. The latter sees the hat without any support waved about. On one occasion the authors impressed upon some hypnotic subjects, on whom the noise of a Chinese gong produced catalepsy, the idea that on awaking they would no longer see or hear it. When awake the gong was brought close to their ears and violently sounded. Catalepsy did not ensue, as is usual in such cases, nor did they flinch. When again hypnotized, and the power to perceive the instrument was restored, a faint stroke on the gong produced profound catalepsy. Anæsthesia in reference to small objects may last for even some months. Allied to psychical anæsthesia is the loss of memory of the subject's own name—a very familiar incident in hypnotic experiments. The subject is assured that he has totally forgotten it, and although but slightly hypnotized may altogether fail to recall it, in spite of making violent efforts to do so. The motor paralysis is easily caused by suggestion. A subject was told that her right arm was paralyzed. At first she said, "I tell you I am not paralyzed." By continued repetition, however, the experimenter succeeded in inducing

absolute paralysis. She was then assured that it would continue after she was awake. She was surprised when aroused to find that her arm was paralyzed, having no remembrance of what occurred when she was hypnotized. Generally there is anæsthesia also, and very strong currents of electricity may be sent through the limb without causing the subject to complain. The muscular sense is also suspended. The limb feels cold, and the thermometer sometimes confirms this. There is also exaggerated reflex action. It has been ascertained by Marey's tracings that during the induced paralysis this action increases, but that it diminishes with returning voluntary movements. The limb on the other side of the body is stronger, and the results of testing by the dynamometer are given. We now come to aphasia. It has occurred in psychical paralysis of the right arm that the subject, although awake, was unable to speak, and that her tongue deviated to the same side. It can hardly be supposed that the subject simulated these unexpected symptoms. Agraphia can be induced by suggestion, and the effect is very striking when the subject is told that it will be impossible to write a certain word. It has been observed that when the right hand is affected by agraphia the left hand becomes capable of registering on the dynamometer a higher degree than before. Further, there is greater accuracy and perfecture of movement in this limb.

The chapter on the application of hypnotism to therapeutics and education need not detain us long. It is observed that " it is still difficult to give a rigorously scientific account of the results obtained, since few observations have as yet been published, and in some of these it is impossible to find an objective characteristic of hypnosis. Others, again, are incomplete, or published by incompetent persons, whose descriptions do not carry with them a conviction of the reality of the morbid state in question. Finally, precisely on account of the nature of its action, which is exclusively exerted on diseases in which there is no definite material lesion, and which are, therefore, purely dynamic, suggestion only cures affections which are capable of spontaneous modification, or which are influenced by various external agents. At present, therefore, it is difficult to establish the real value of this mode of treatment, although less difficult than in the case of many remedies in general use. It can only be said that it is founded on accurate notions of mental physiology, and consequently on a rational basis.

"Medicine for the imagination is distinct from hypnotic therapeutics, in which the artificial sleep is itself the curative agent, in whatever way it may have been produced. These two therapeutic processes, artificial sleep and suggestion, have sometimes been erroneously confounded. They are far from being of equal value" (p. 358).

The last chapter deals with the important question of responsibility in relation to hypnotism. The medico-legal questions arising out of this aspect of the subject are of great importance. On the one hand it is quite certain that persons falling spontaneously into somnambulism may commit acts for which they are entirely irresponsible. Secondly, it is obvious that evil-minded persons may make use of hypnotism as of chloroform for nefarious purposes. There can be no doubt that its use ought to be restricted to medical men, or to persons acting under their instructions.

This volume is an honest and valuable *résumé* of the alleged facts of so-called animal magnetism; and although we accept some portions with reserve, and suspect that more phenomena are explicable by unintentioned suggestion than the authors are aware, we can cordially commend the work to our readers.

Anleitung beim Studium des Baues der Nervösen Centralorgane im gesunden und kranken Zustande. By Dr. Heinrich Obersteiner, k.k.a.ö., Professor a.d. Universität zu Wien. Leipzig u. Wien, Toeplitz und Deuticke, 1888. 393 pp., 178 wood engravings.

As Prof. Obersteiner states in his preface, this book is intended as a guide to the student to enable him to obtain a reliable knowledge of the different parts of the central nervous system, and especially for those who are unable to obtain a complete series of preparations to illustrate the same; at the same time it gives the student ample directions in making preparations for himself, and for this purpose the style is made as purely didactic as possible.

The work is divided into seven sections.

In the first section, on methods of investigation, the student is directed in the different ways of examining nerve-tissues, and we have a very good account of how to harden, imbed, and cut the various parts of the nervous system. Under this heading are given the methods of teasing pre-

parations, of cutting series of sections by means of imbedding in celloidin, the modes of straining the nuclei, the medullated sheath, and the axis-cylinder of the nerves, and especially Wright's hæmatoxylin method, Pal's modification of the same, and Freud's gold chloride method, which stains the axis-cylinders. Amongst other methods is the corrosive sublimate staining of the cells and their processes by Golgi. After this are given the investigations of development by Flechsig, and those of extirpation by von Gudden, and the changes produced in the nervous system by disease or experiment are illustrated to explain the way in which the different tracts are traced out. Here, too, we must mention Ehrlich's method of injecting methylin-blue into the veins during life, which stains the nerve endings.

In the second section the coarse anatomy of the brain and spinal cord is fully described and illustrated by numerous drawings.

In the third section the histological structure of the different components of the nervous system are given, and at the same time the pathological changes are described and figured immediately after the normal account of each tissue. This is a very useful arrangement, as it enables the student to compare the appearances as they are found in health and disease. The nerve-fibres, the nerve-cells, the vessels, the epithelium lining the different cavities, and connective tissue with the neuroglia are severally detailed. This is a very valuable chapter, and it is illustrated by numerous original drawings, which give a most faithful representation of the different histological and pathological changes.

The fourth section, on the more minute structure of the spinal cord, describes, first, a general outline of the minute structure of the central organs of the nervous system, the constitution of the nerve-cells and fibres, the central grey masses, the various tracts, and then the different theories held by Meynert and others as to their general connections and arrangement. The minute anatomy of the spinal cord, including the groups of cells and the various tracts, are then fully described, and are illustrated by several original drawings, including a very good scheme of the course of the fibres on p. 186. The section is completed by an account of the vessels of the cord, and a short description of the pathological changes in the spinal cord.

The topographical survey of the brain, medulla, and pons occupies the fifth section. To facilitate the better

understanding of the complicated arrangement of the different nerve nuclei of the medulla and pons, a full-sized drawing of the posterior aspect of this part is given with eighteen horizontal lines drawn across it at various levels, and a drawing of a transverse section of the pons or medulla is given corresponding to the level of each of these lines. By this means the student is able to ascertain the exact position on the medulla or pons of any given section. The drawings are magnified four times the original size, and only one-half of each section is filled in with details, the other half being reserved as a key with explanatory letters. The woodcuts are most beautifully and faithfully drawn, and in our opinion are some of the finest that have ever been executed. The description of the various parts of this most difficult region is exceedingly clear, and will be of great value to the student in learning this part, or to the physician who requires to refresh his memory. The rest of the chapter is devoted to the structures in the interior of the brain, and is illustrated by drawings of frontal sections of the monkey's brain.

In the sixth section the principal fibre tracts are described, and we have here a very clear scheme illustrating the connections of the different tracts with the cortex cerebri, the cerebellum, and the spinal cord. The crus cerebri is shown to be divisible into six different parts, and is illustrated by an explanatory diagram, and the internal capsule is treated in a similar manner. The posterior columns of the spinal cord, and the tracts into which they are continued upwards, are then given, and the complicated connections are better explained by a diagram on p. 260 than we have seen elsewhere; the tract which was first described by Gowers is also here included. The cranial nerves are very fully described, as many as nine pages being devoted to the olfactory nerve alone. The deep origins of most of the cranial nerves are illustrated by very clear diagrams, which enable the student to understand the connections of these nerves with very great facility, and form quite a unique feature in this work.

To the cerebellum sixteen pages are devoted, and the description of the minute structure of this part is exceedingly complete, and contains all the latest work written on this organ. The illustrations are very beautiful, especially Fig. 149, which gives a representation of the plexus of fibres stained by Wright's method, and Fig. 151 representing a

Purkinje's cell and its processes as they appear when treated by Golgi's sublimate method.

This chapter is concluded by a description of the different masses of grey and white matter of the cerebrum, with a minute account of the cortex cerebri with its fine fibres and groups of cells, and, lastly, the pathological changes of the cortex cerebri.

The work is concluded by the seventh section on the membranes and the diseases affecting them, and also on the large vessels of the brain.

We have endeavoured in the foregoing pages to give a short account of this most valuable work, but we feel it impossible to do justice to it in so short a description.

We cannot speak too highly of this book, or of the clearness and lucidity which Prof. Obersteiner has brought to bear on this difficult subject, and on every page one feels that the writer has seen for himself and has a complete knowledge of everything which he describes.

We must not omit to mention here the illustrations, which form a very important part of the work; they are all original and are most faithfully executed, and of themselves will very much facilitate a more correct knowledge of the nervous system.

We conclude by congratulating Prof. Obersteiner on the production of a work which is certainly one of the most important that has appeared on the subject, and one which will speedily find its place in the laboratory of everyone who is working on the anatomy or pathology of the nervous system.

On Insanity in relation to Cardiac and Aortic Disease and Phthisis. The Goulstonian Lectures (substance of) delivered before the Royal College of Physicians of London, March, 1888. By William Julius Mickle, M.D., F.R.C.P.Lond., Medical Superintendent Grove Hall Asylum. H. K. Lewis, London. 1888.

These lectures contain, as everyone who knows Dr. Mickle's writings would be prepared to expect, a vast mass of instructive facts drawn from the asylum experience of the Medical Superintendent of the Grove Hall Asylum, Bow. Materials here presented to the profession are more suited for perusal than for an auditory, as they require strong digestive powers and the time which is always understood to be necessary for

this process in the case of a heavy meal. Within a hundred pages the reader will find a store-house of clinical observations to which he may frequently refer with great advantage. The lecturer evidently felt hampered by the unavoidable limit of time. Hence he had to pass over acute tuberculosis and tubercular meningitis occurring in the insane; also the main points of treatment of phthisis in the insane, and illustrations of the effect of antifebrin drawn from temperature charts.

We must content ourselves with commending these lectures: to attempt to analyse them would be unsatisfactory. Moreover, they have no doubt been read already by most of our readers.

Lehrbuch der Psychiatrie, auf Klinischer Grundlage für Praktische Aerzte und Studirende. Von Dr. R. v. Krafft-Ebing, k.k.o.ö., Professor der Psychiatrie und der Nervenkrankheiten an der Universität Graz. Dritte umgearbeitete Auflage. Stuttgart: Verlag von Ferdinand Enke. 1888.

We congratulate the learned author of this text-book on the appearance of a third edition. The value of the work, which has become classical, has been already acknowledged in a review of some length in this Journal, and the importance of the new edition is increased by valuable additions. This volume is dedicated to Dr. Schüle, of Illenau, on the close of his quarter of a century's successful work as a physician and clinical observer.

Professor Krafft-Ebing is the author of an important memoir published two years ago, to which we have too long deferred a reference. Its title is "Psychopathia Sexualis: eine Klinisch-forensische Studie." The manner in which the subject is treated is marked by the careful observation and important commentaries which characterize all the writings of this able and industrious mental physician.

Variations de la Personnalité. Par les Docteurs H. Bourru et P. Burot, Professeurs a L'École de Médicine de Rochefort. Avec 15 photogravures. Paris: Librairie J. B. Baillière et Fils, Rue Hautefeuille, 19, Prés du Boulevard Saint-Germain. 1888.

The disorders of personal identity have received an extraordinary amount of attention since M. Azam published his

remarkable case of double personality many years ago. Hypnotism has afforded an opportunity of inducing and studying different mental states absolutely separated one from the other. Double consciousness has for many years been recognized, the phenomena of spontaneous somnambulism and also traumatic cerebral conditions having exemplified it, but the instances were few and far between. Now, however, the variations of personality have been artificially induced in a large number of instances.

The book before us is the most recent treatise on this subject. The authors admit that the interpretation is difficult. After rejecting previous theories as insufficient, the authors postulate especial energy in the higher organisms, excited into action by external influences, and to this they have recourse for an explanation. M. Féré's observation is quoted that "every time a cerebral centre is called into action, the whole organism becomes excited. It is not the brain alone which thinks, but the whole body." This general functional excitement sometimes only augments the tension of the motor force, sometimes provokes unconscious involuntary movements, a kind of automatic writing of our thoughts; sometimes it is so strong it causes an impulse and a spasm which the subject cannot arrest. These are the words of MM. Bourru and Burot. The origin of the force is chemical, and there is therefore a complete analogy between living cells and explosive bodies. This is "in the muscle, and the force induces a circle, comparable to electricity along the whole length of the nerves, and accumulates in the nervous system put in action by a spectral stimulus; it causes the cells in which are stored ideas, emotions, and movements to vibrate, and according to the direction of the vibration the final explosion will be determined" (p. 297).

The space at our command does not allow of an extended notice of this book.

We note that a second edition has appeared of the "Monde des Rêves"* by M. Simon, the Medical Superintendent of the Bron Asylum. We hope to return to it in a future number.

* Published by J. B. Baillière et Fils, Paris.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Russian Retrospect.*

(*Concluded from p.* 140.)

Address to the Medico-Psychological Association in Moscow by the President, Professor Mierzejewsky, on the "Mental and Nervous Diseases in Russia."

No doubt all the above-mentioned circumstances, which predispose and contribute towards the progressive development of mental and nervous diseases, require certain measures, which do not pertain solely to the *medical profession ;* the healing of social calamities is a work of society at large—a tardy work of several ages. Owing to this, the solicitude of society, directed towards the judicious care and treatment of the insane, will at the same time serve in the light of formidable measures towards the decrease of mental diseases; by increasing the percentage of curability from insanity, and by preventing its transition into an incurable state we, at the same time, lessen the amount of individuals affected by chronic mental diseases which become a burden to mankind. However, to crown our endeavours with success it is of the utmost necessity to be aware of the extent of the evil and to investigate it in detail; otherwise our endeavours may prove very deficient. In reality, do we even possess efficient statistical statements by which we can ascertain the condition of the insane in our country? Are we thoroughly acquainted with the exact number of the insane in Russia? No exact registration of our insane has ever yet been made. The reports of our Medical Department for recent years present only indistinct reference to the number of the insane under care in our hospitals. Thus, by the reports of the Department for 1878, we ascertain that the number of beds for the insane in our hospitals and lunatic asylums was 9,074, excluding the Governments of Archangelsk, Wladimir, Wolinsk, Grodno, Eniseisk, Kowno, Orenburg, Smolensk, Twer, Toula, Esthonia, and the town of St. Petersburg (where the patients admitted to the temporary police-office asylums were included in the above-mentioned report). The most accurate census concerning the insane for the year 1878 was received from the Governments of Courland and Livonia, where the total number of lunatics, imbeciles, and epileptics was 2·5 per 1,000 of the population. In Courland the total number of individuals of the three above-mentioned categories was at the ratio of 2·3 per 1,000 of the population. There also exist some fragmentary statistical reports of the insane which had been examined by the medical staff of the Conscription Court, but these figures had reference only to

the males of a certain age, after the summoning of them as recruits in the years 1876, 1877, and 1878.

Although such information cannot solve the question concerning the general number of the insane in Russia, nor even of the number of our insane of a certain age, however they demonstrate that out of 754,362 individuals of the same age, which had been examined for recruits at the Conscription Court, during the three above-mentioned years, there were 3,072 imbeciles, idiots, and insane, or, on an average, out of each 1,000 of the individuals which had been examined, four were mentally affected. In the report of the Medical Department for 1882 we find the following information: In that year in 54 Governments there existed in all 69 lunatic asylums, with the ratio of 6,172 admissions, while the accumulation of patients under treatment in the lunatic asylums and hospitals for the insane had amounted in that year to 22,394 patients.

This report, much more complete than the former one, and in which are included the Governments not mentioned in the report of 1878, demonstrates the remarkable fact that though hospital accommodation for the insane exceeded in 1882 that of 1878 (it amounted to a difference of 772 individuals, in other words to one-seventh of the total number of beds in 1878), still the total number of cases of insanity was greater than in 1878 by the number of 13,320 individuals; that is to say, by double the total number of the insane in 1878. Lastly, the report of the Medical Department for 1886 demonstrates that the number of the insane in Russia amounted in that year to 9,304 (8,729 of them being civilians and 305 military). If we were to admit that the amount of hospital accommodation for the insane in 1886 amounted to 10,000 beds, still it is proportionately in Russia 12 times less than in Switzerland, where out of 866 of the population *one* lunatic is provided for; while with us in Russia only *one* lunatic out of a population of 10,000 is under proper treatment.

The report of the Medico-Psychological Association for 1881 addressed to the Society for the Protection of Public Health, plainly shows the state of provision made for the insane not only in the provinces of Russia, but also in the town of St. Petersburg. This report demonstrates that the total number of the insane under treatment in the 11 hospitals of St. Petersburg amounts to 1,885 out of 927,000 of the town population; in other words there is accommodation for *one* insane to each 544 of the population of St. Petersburg. Most certainly, if such accommodation for the insane was taken relatively to the total number of our urban and rural population, we could be justly proud of our efforts to provide for the insane, and flatter ourselves that our institutions for the insane are placed quite on an exceptional footing. Indeed, looking upon the matter from a theoretical point of view and conformably to the statistics of any known population, it is a generally acknowledged fact that, in the civilized countries of the present day, out of a population of each 1,000, at any

rate, three are insane (including the idiots). Therefore, one-third of this number, viz., one out of each 1,000 of the population, stands in need of hospital care. However, we must take into consideration that there is an immense disparity between the facts as regards a whole nation, or as regards the population of any known town; further, we must remember that St. Petersburg presents a quantity of peculiar and exceptional anti-hygienic conditions, owing to which, as we learn from the weekly returns of the Town Council, the amount of deaths in St. Petersburg exceeds the amount of births; the average of the population being, therefore, kept up and augmented only owing to the influx from the provinces. The hypothesis stated in the above-mentioned report of the Medico-Psychological Society, that in St. Petersburg of each 300 of the population one is mentally affected, may be considered not only as a correct and very probable one, but also may be considered very moderate. Therefore, the above-mentioned approximate calculation and the latest statistical returns concerning the population of St. Petersburg, lead us to the conclusion, that the total number of the insane in our capital amounts to 3,000 individuals.

Further, we must acknowledge the fact that this calculation cannot be adapted to great towns; the above-mentioned calculation that only one-third of the total number of insane can be considered unconditionally requiring hospital accommodation, referring only to the population of a whole country and not only to that of our great towns. On the contrary, we think we will not be wrong in surmising that in our great towns, at any rate, two-thirds of the total number of the insane are provided for by the community. As a proof of this fact we can point to England, where the number of great towns is so considerable, and where one to each 440 (and not to 1,000) of the population is under hospital care. In St. Petersburg generally one mentally affected patient to each 544 is provided for; but if we only consider the number of patients more or less rationally provided for (1,000-1,100) we find that of a number of 836-927 of the population, only one is provided for, a number greatly deviating from that which we observe in England in reference to the whole of its population. We conclude that in St. Petersburg, most assuredly, a considerable number of insane remain without care at all. What becomes of them, who provides for them, how they manage to struggle on through life, and how they perish in that struggle—all these are questions which have not yet been solved by any statisticians. That our hypothesis of the insane in St. Petersburg is not exaggerated we can be convinced by comparing this latter town to Paris, where, to a population of two millions in 1881, the total amount of the insane, as seen by the reports of the Prefect of Paris, was 8,260; in other words, one insane to 242 of the population.

All the above-mentioned facts may serve as a proof: 1. That the total number of the insane in Russia is even approximately unknown; 2. That the hospital accommodation for the insane in Russia is in

number 12 times less than in other civilized countries, in proportion to the population, as, for instance, in Switzerland; 3. That even in such a large town as St. Petersburg the accommodation made for the insane in the hospitals specially adapted for them is not suited to their special requirements and exigencies.

Now that the care of the insane is entrusted to the municipality, we notice a considerable improvement in the various lunatic institutions. Many of the provincial municipalities endeavour to secure the services of enlightened medical psychologists—medical men thoroughly competent in their specialty; the result is, that beneficial reforms have already manifested themselves in many of those provincial districts, where these psychologists have been appointed. New asylums have been erected, the colonial system of provision for the insane has been introduced and accepted as an ideal type for municipal lunatic institutions. The lunatic asylum in the village of Bourasheff (Government of Twer) can be pointed out as an example of the noble endeavours exercised by the municipality towards improvements in the management of the insane. To these endeavours we are most certainly indebted for the considerable increase of accommodation lately introduced in the hospitals for the insane; the endeavours have also served to instil in the minds of the populace a feeling of confidence towards the various institutions for the insane inaugurated by the rural municipalities. Indeed, we can most certainly affirm that the system of providing for and treating the insane has greatly progressed lately, owing also, most assuredly, to the help of the Government and its contributions of funds for the erection of new lunatic asylums. Notwithstanding these facts, however, many of the rural municipalities and the institutions for the insane, in their efforts towards improvement, possess no general plan of activity, no solidity. This can be easily noticed in the reports issued by the medical staff of these institutions. In these reports the very classifications of mental diseases are at variance; also there is a great disparity in the classification of cases of convalescence, and the etiological tables, in many respects, very widely differ one from another. Thus, for instance, the returns of the various hospitals in Russia exhibit the following number of patients recovered from insanity:—In Kazan hospital, 13 per cent. (in 1882) and 15 per cent. (in 1884); in the Moscow Preobrajensky hospital, 18 per cent. (in 1882); St. Nicholas in St. Petersburg, 9·4 per cent. (1885); and in the hospital in Charkoff, 48·9 per cent. (in 1882). The number of cases of morbidness caused by abuse of alcoholic liquors amounts to 7 per cent. in the hospital of St. Nicholas in St. Petersburg, while the number of similar cases in Charkoff amounts to 42 per cent.

Taking into consideration the incompleteness of the official returns of the insane in Russia, and also the great disparity in the classification of the insane, according to their curability and to the ætiology of alienation, we propose the following measures which will be of use

in procuring more substantial and exact information concerning the provision made for the insane in Russia:—

To organize a general census of the insane in Russia, whether under hospital or private care. For avoiding the difficulties of the task of regulating statistical statements of insanity in Russia, the Medico-Psychological Association has wrought out certain statistical tables for recording cases of insanity under treatment in the hospitals of St. Petersburg, and otherwise provided for in that town. It would be of great importance if such tables were sent out to all the rural and urban municipalities, to the lunatic asylums, and to all similar institutions in Russia to obtain exact statistical information.

Statistical statements concerning the insane in hospitals being intimately connected with the systematic classification of psychoses adhered to in any known hospital or asylum, the Medico-Psychological Association of St. Petersburg has prepared special nosographic tablets,* which are to be used as models for the hospital reports in our country. These tablets will serve to introduce a more strict identity between the various hospital returns of our country, and are founded on clinical principles and those of anatomical pathology. The Medico-Psychological Association is of the opinion that the so-called Schüle and Krafft-Ebing's classification of the various forms and minute varieties of insanity, which is generally accepted in the present day, cannot serve as a model for recording statistical statements, it being deficient in a practical point of view, owing to the variety of its items and the narrow margin in which the different groups of insanity have to be ranged. This classification, being so complicated, presents great difficulty in carrying out of all statistical labour. To avoid these difficulties, the Medico-Psychological Association proposes a shorter and easier nomenclature, which comprises all the typical clinical forms of insanity, strictly specified in our clinics. These tables will be amplified by ætiological tables which are not yet completed. It is of the utmost necessity, besides the above-mentioned general inventory of the insane, also to introduce a strict revision of the hospitals and asylums for the insane in our country; these duties should be carried out by persons belonging to the medical administration with the aid of competent experts in psychiatry and architecture; it will then be possible to judge with precision of the necessity to introduce various useful and practical reforms in the system of providing for the insane of any known district. Investigations made on the spot, statements gathered from statistical reports of any known district, and the personal experience of the medical staff, as also of the members of the municipality, will afford considerable help in forwarding such reforms. Most assuredly, such a revision can only be introduced gradually, taking into consideration the dimensions of the Russian Empire, the small number of competent experts who are able to undertake this task, and the unfavourable circum-

* See "The Messenger of Clinical and Forensic Medico-Psychology and Neuropathology," IV, 1 Section, pp. 297-299.

stances towards gaining statistical information, added to the limited propagation of instruction in the rural districts.

An experience of several years' practice in Russia, the investigation of facts concerning the system of providing for the insane in other countries, as also a thorough knowledge of the general system of providing for the insane in our country, leads me to the conclusion that it is of the utmost importance to organize three different types of institutions for the insane, as, for instance, university clinics, institutions for the insane, organized by the rural municipalities, and those organized by the urban administration.

With the view of improving the system of providing for the insane, it is essential to organize for that purpose a staff of experienced men, well prepared for the duty before them. This staff ought to be strictly composed of able specialists, taking into consideration the fact that the domain of psychiatry, and of the various nervous diseases which are so closely related with each other, is so extensive that its study requires, besides a general medical treatment, special information and culture. Such a study and such special knowledge of psychiatry can be obtained only under the guidance of professors who are specialists, and also after serious practical occupation in really well-organized hospitals. It may well be said that the clinic for the insane at St. Petersburg has particularly proved itself to be a nursery for forming such well-instructed and competent specialists as were mentioned above. This clinic was also the first institution of the kind in Russia, and was founded in 1859 by my honourable teacher, Professor Balinsky, whose name, crowned with fame and respect, ought to occupy one of the first places in our present assembly. Professor Balinsky, with the aid of his pupils, has greatly contributed towards placing the duty of providing for the insane of St. Petersburg, and also of all Russia, on a solid foundation. Owing to their beneficial endeavours an exemplary hospital for the insane was established at Oudelnaja, where were introduced admirable agricultural occupations. Another proof of these beneficial endeavours can be found in the inauguration of the spacious hospital of St. Nicholas at St. Petersburg, and the reforms in the hospital of Misericorde.

Many of the pupils of the above-mentioned clinic are highly respected by our provincial municipalities, and have already accomplished useful reforms in their sphere of action in the towns of Twer, Kazan, Cherson, Odessa, Limferogwl, Nowgorod, Lamara, Poltawa. Some of the pupils of the Clinic for the Insane at St. Petersburg fulfil at the present moment the duties of professors in the recently-founded Clinics of Psychiatry at Kazan and Kiew.

Now that more than 28 years have elapsed since the clinic for the insane at St. Petersburg was founded, and since it began to exercise its beneficial functions in promoting the advance of psychiatry, the present Minister, General Wannofsky, and the President of the Medico-Chirurgical Academy, Bikoff, have decided to remove the

clinic into a new building, specially inaugurated according to the latest scientific improvements. It is to be hoped that this institution will in time be classed amongst the best clinics of the insane in Europe. Also a number of useful practitioners in the domain of psychiatry have received their clinical instruction under the guidance of the late Professor Freze (former director of the Kazan clinic for the insane), amongst them the well-known Professor Kovalelewsky. Finally, very shortly, thanks to the experienced and humane efforts of Professor Kojernikoff, we shall be able to assist at the opening of the first exemplary psychiatrical clinic at Moscow.

According to the increase of the number of establishments for the insane there will be a still greater demand for specialists, and very probably the existing schools will prove insufficient. Therefore, for the culture of these specialists, there ought to be inaugurated model clinic institutions for the insane at the universities of our large towns, where the students of these universities—the future doctors—who wish to devote themselves to the study of psychiatry would be able to acquire all the knowledge which their special culture demands. Most certainly the inauguration of such clinics will be more expensive than that of other institutions for the care of the insane, because these clinics require to be scientifically organized, to possess their own laboratories, cabinets for microscopical and chemical analysis, and special libraries. Shortly, such clinics ought to be provided with all the latest scientific materials, serving not only for a model mode of treatment and care of the insane, but at the same time for the accomplishment of scientific investigations which lead towards the progress of science. Admission in these clinics ought to be accorded to patients suffering under various forms of insanity which offer scientific interest, as also to such individuals whose mental capacities have to undergo a medical examination; also to those patients who have to be placed under medical care for the solution of disputed psycho-legal questions. These clinics must contain such patients which offer all the modifications of insanity, and especially acute forms, which exhibit a tendency towards curability. These clinics ought, therefore, to be free from the access of patients with chronic or incurable diseases, those last being transferred to other establishments for the care of the insane which do not pursue a strictly clinical aim.

Institutions of the Rural Municipalities.—The problem of the municipal institutions is less complicated than that of the clinics. Leaving apart the higher exigencies of science, their aim is to afford shelter for the insane and to provide proper management and treatment for the mentally-affected, which are confided to the care of the municipalities of the rural districts.

The model of such an institution of the municipality ought to consist of a central building with properly-adapted sections, according to the best contemporaneous methods as regards the classification of such patients and their treatment. Adjoining to the central building is

attached a farm or colony to afford to the patients the means of devoting themselves to agricultural occupations in the fields. The accommodation of the rural municipality establishments for the insane is much simpler than that of the clinics. In their organization it is necessary to pay particular attention as regards the proper management of agricultural labour, and of the cultivation of the fields by the patients, a matter which, being of the utmost importance in the treatment of the insane, at the same time brings immense profit to the asylum where such labour has been introduced. Indeed, it is a known fact that properly-organized agricultural work affords great help towards defraying the expenses laid down by these asylums.

In every large town there ought to be organized two different kinds of establishments for the insane—a central hospital with its admission-wards for acute cases, and the rural division provided with a farm and with properly-organized manual (professional) workshops. The rural establishments must be in direct communication with the central hospital, and between the two establishments there ought to be carried on a continual reciprocal interchange concerning the transportation of chronic, incurable patients, or of such as require for their treatment the country air, occupations in the fields, or in the professional workshops. The regulating of professional workshops in the rural hospitals for the insane near large towns is of great importance also, because a large contingent of patients treated in the hospitals consist of artizans and workmen from the factories, who are, while nearly always very loath to occupy themselves with agricultural labour, very pleased to take in hand their accustomed professional work. Besides, in our climate agricultural work is very precarious, while professional work can be carried on in the workshops all through the year.

The organization of the admission-bureau in the central hospital is a matter of paramount importance. This bureau is destined principally for the admission of indigent patients or in cases of utmost necessity; also of other inhabitants of the town. The whole system of providing for the insane, the speedy and appropriate psychical treatment of the same, is rendered in a great measure easier by a strictly precise and efficient investigation of the morbid state of each patient, and that after subjecting some of these patients to an inspection of several days, after which these patients undergo strict classifications according to the morbid state of each. This classification decides the question as to their being placed either in the central hospital or in the colonies, or as to their dismissal in the case of their illness being of a transitory nature and requiring only further inspection, which may be continued at the ambulance.

The expenses for the maintenance of the patients are in this manner greatly diminished, owing to the fact that after such a strict investigation there may be noticed such forms of insanity which can be benefited exclusively by ambulance treatment, without

it being necessary to place such patients in the hospitals; very often this is also the earnest desire expressed by the relations and friends of the patient. Inhabitants of great towns, prone to exhibit a tendency towards neurasthenia and other mental affections, are often subject to temporary and transitory morbidness, which is very often brought on by the influence of sudden, unexpected casual events of life, which are in time often erased from the memory of the patient. An attentive inspection of such patients during several days is sometimes sufficient to show that the mind is not alienated, and that they may be allowed to retain their liberty. The merit of such well and humanly-regulated ambulatory-bureaux lies in the fact that they save many unfortunate victims of mistaken conduct, or of excesses of despair, from the necessity of being locked up in lunatic asylums. Often timely help—the bounty of some benevolent society—can in great measure assuage the pangs of sharp despair, prevent suicide, or the development of a morbid transitory state into a real psychical disease. However, such a bureau will only be able to bring into action its highly humane functions if at its head will stand a physician, who is not only an able diagnostician versed in the science of psychiatry, but also a kind-hearted man, who is able to interpret the slightest modulations of human sorrow, to disperse the intensity of such sorrow by the kindness of his demeanour towards these sufferers, and to suggest some allotment to assuage the sharpness of their sorrows or woes. It is of the utmost necessity that such a bureau should be independent, and not under the control of the central hospital; it should not be stinted in the liberty of its actions; further, these bureaus should be supplied with a spacious ambulance, and be in direct connection with our benevolent associations, which have in view the care of the convalescent insane.

The care and treatment of the insane are confided to the municipality, and the town administration under the control of the Government. Although many of the rural and urban municipalities have had recourse to the services of competent physicians and able specialists, and aided by their guidance and help have organized in their districts proper provision for the insane, still, however, the same cannot be said in reference to all the numerous rural and urban municipalities in Russia. Further, the staff of each municipality not being permanent, the views and opinions of its new representatives concerning the system of providing for the insane very often widely differ from those of the former staff; owing to this fact the beneficial undertakings of the previous staff undergo a thorough change, and the whole system is underrated or entirely thwarted. Lastly, it must be confessed that in all measures tending towards the providing for the insane which are undertaken by the various municipal administrations, there is no unity of purpose, no solidarity, and no logical following out of any given principles which alone warrant the success of each undertaking.

The control of the Government over the various establishments for providing for the insane is very limited, and manifests itself principally in approbation or nonapprobation of the medical projects and plans presented to the Government by those municipalities which have recourse to the aid of Government subsidies for the carrying out of their projects. The control of the Government uncontestably demanding special knowledge concerning the system of providing for the insane, and the range of its activity being so extensive it is obvious that our medical administration, owing to its present limited staff, cannot possibly obtain any successful results.

Taking into consideration all these facts, and with the view of raising the system of providing for the insane in Russia to a more stable basis, of imparting to the measures which are taken towards its improvement more solidarity and unity of purpose, of inspiring Government control over the establishments for the insane with more importance and widening the circle of its activity, it is essential to organize a special faculty, the duty of which would be to serve in all matters concerning the insane, in the quality of an arbitrator between municipality institutions and the higher medical administration, having especially in view the realization of the above-mentioned aims. The duties of such a faculty might be carried out by a Committee of the Central Medical Administration, formed of experts respectively in medicine, administration, architecture, and jurisprudence. The duties of the Committee will be to afford energetical support and active help towards the judicious provision for the insane in Russia ; this Committee should, therefore, superintend and guide all the efforts tending towards improvements in the judicious maintenance and treatment of the insane. The duties of this Committee lay in the revision of architectural plans, the estimation of the budget of the establishment and of its administration ; also the Committee superintends the working out of the statutes concerning the staff of officials in service in the various establishments, and the instructions pertaining to these staffs.

The Committee is entrusted with the application to the Government for the granting of privileges for the inauguration of institutions for the insane by the urban as well as the rural municipalities, and also the inauguration of private asylums ; it should also remove all obstacles and formalities which are connected with the granting of these privileges. Further, it is the duty of this Committee to solicit permission of the Government to revise the existing lunacy laws in the view of reforming the same, or introducing new statutory provisions of lunacy laws, if this should be deemed necessary by the administration of the various establishments for the insane. Finally, on the Committee devolves the duty of electing and presenting to the affirmation of the higher medical administration the special Government superintendents entrusted with the periodical revisions and control over the medical and economical management in the

various establishments for the insane. The reports of these superintendents concerning the efficiency of provision made for the insane in the asylums revised by them are to be referred to the Committee, which annually publishes a general report of the provision made for the insane throughout the empire.

For to enable this Committee to carry out more efficiently its lofty aims, and to impart to it greater authority in the sight of all the various social establishments and the administrations which are entrusted with the management and the care of the insane, it must be composed of a staff of our best scientific specialists in psychiatry, jurisprudence, architecture, and so forth ; and at its head there ought to stand a person who is universally revered and beloved.

With such a Committee the system of providing for the insane will be placed on a sound basis, and will obtain regular advancement and gradual efficient development in the future.

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2. *French Retrospect.*

By D. Hack Tuke, F.R.C.P.

L'Automatisme Somnambulique devant les Tribunaux. Dr. Paul Garnier.

Resuming our notice in our last number of this pamphlet we proceed to give a sketch of the interesting case which Dr. Garnier reports (*vide* "Journal of Mental Science," January, 1888, page 627). Prolonged and minute examination showed that a criminal act was committed in a state of somnambulistic automatism. The patient was twenty, a dentist's pupil, and one evening entered a curiosity shop opposite his own residence, and proceeded quietly to remove a number of articles in a leisurely manner, as if he was quite at home. He carried to his own house various articles of furniture, and was only prevented by the arrival of the shopkeeper, who easily apprehended him. Stupid and dumfoundered, he at once stoutly denied the charge, and acted in a very eccentric manner. At the police-station it was observed that he had momentary fits of absence. When spoken to he no longer replied. When his name was called he did not move, and the strongest appeals did not arouse him from his torpor. He had a succession of attacks of somnambulism, and when before the magistrate was in one of them. He had been subject to similar attacks. He was the only son of a neurotic mother, who was extremely impressionable and subject to hysteria. Healthy till eleven, he then manifested grave cerebral symptoms, which were attributed, rightly or wrongly, to sunstroke. For some weeks his life was in danger ; he had several convulsive attacks, and for a long after this period he was subject to attacks of somnambulism. After a time, however, he appeared to have recovered, but he retained an unhealthy condition of the nervous

system, especially mental instability. At last he aspired to a great fortune, and was full of confidence in his powers. He was placed with a dentist, but he never properly applied himself to his work. In 1884 he had typhoid fever, and although it was a mild attack, its effect upon his organization was marked. His moral feelings underwent an evident change. He entirely neglected his work, became fantastic in his appearance, and was by turns exalted and apathetic. In the middle of 1885 there was much nocturnal agitation. He started up in his bed, groaned, and sometimes shouted with terror, and spoke incoherently. After a while he was seen to rise from his bed in the middle of the night, and wander about mechanically in his room. He displaced articles of furniture, or he occupied himself as if engaged in his customary occupations. He generally returned to his bed without anything happening, but at other times he had convulsive seizures. One night his parents observed him walking in his sleep, but they were afraid to interfere. Suddenly he went towards the window, opened it, and attempted to jump out. He was, however, prevented. A hystero-epileptic attack followed, and after a few minutes he awoke, without the slightest remembrance of what had occurred. After a while these attacks appeared in the day time, being characterized by strange absences or dreamy attacks in which consciousness was suspended. He would fall asleep at table, or in the middle of his work; his immobility being readily mistaken for mere apathy and idleness. He was spoken loudly to, he was shaken, etc., but all to no purpose. One day during an excursion into the country, he was found in a strange attitude, and when spoken to made no answer. They were obliged to bring him back to Paris in this state, and it was only on the morning afterwards that he became himself, when he was astonished to hear what he had done. About this time the mode of life, conversation, and conduct of X— showed that he had true mental disorder. Seized with feverish excitement, exuberant, versatile, and ambitious, he no longer attended to his duties. His excited brain became the seat of impracticable projects. He announced that he would become a great musician, at another time a doctor of eminence. For some weeks he occupied himself in attempting to carry out these projects. He suddenly quitted his family without any other motive than to escape their oversight. His extravagances increased, and criminal acts followed. At last judicial proceedings were taken against him. Such was the state of affairs when he was arrested under the circumstances already mentioned. It should be stated that he was a youth of middle stature, and fairly robust, with well-developed muscles. His step was firm, and there was nothing in his appearance to suggest a feminine temperament. He, however, was markedly emotional; he blushed easily, and there was a mixture of astonishment and vague apprehension in his expression. His conversation was inconsecutive, his explanations very confused. He complained of having been jeered at when examined at the dépôt, and

he demanded that an end should be put to the annoyances from which he suffered. The attendants reported that he did not sleep during the night, but got up and walked about, and when requested to lie down he did not reply, but continued to walk about. "He seems like a man," said one of the attendants, "who seeks something that he cannot find." M. Garnier then found complete cutaneous analgesia, except two hyperæsthesic spots, about the size of a franc piece, situated symmetrically upon the back of each wrist. There was narrowing of the visual field, gustatory and olfactory anæsthesia. Circular pressure exerted upon the forearm easily caused contraction of the hand. On many occasions M. Garnier observed X— at the time of his attacks of somnambulism. The transition to morbid sleep came on instantly without warning. The return to his normal condition was different, there being frequently a violent convulsive attack with opisthotonos, contortions, frightful hallucinations, and sobbings, which terminated the attack. Sleep sometimes came on quite spontaneously, without any sensorial excitement. Sometimes it was the brilliancy of a lamp, or other brilliant object, which the patient could not look at without going to sleep. As is common with persons during somnambulism, he then becomes the prey of the automatic action of his brain, induced by the remains of impressions or ideas which had occupied him when awake. He goes, comes, and acts in a co-ordinate manner, but he is only *en rapport* with the external world on one side. A question without direct relation to the idea which is for the moment dominating his mind will not be heard. But if the interrogation strikes this precise point it becomes possible to enter into communication with him upon this very limited subject. X— walks in that slow and measured way peculiar to noctambules. The eyelids are half-closed; he is agitated by a continual shudder; the head is rather inclined as if watching his movements. It was to be expected that a person offering such functional troubles of the nervous system would be easily hypnotized. And, moreover, it was not without interest in the present case to institute a comparison between the symptoms of spontaneous somnambulism, and those developed under somnambulism artificially induced. As was expected, he was thrown very easily and rapidly into the condition of hypnotism by means of the usual methods. If in the attack of spontaneous somnambulism X— was master of himself (as much so as a man can be who is impelled by a blind force), and obeyed an impulse which was his own, he was artificially sent to sleep, he was at once at the mercy of the hypnotizer. From numerous experiments, conducted with every necessary precaution, he was shown to be in a state of passive obedience to suggestions of the most varied kind.

On December 19th X— fell into a state of catalepsy, and his condition of insensibility and inertia being prolonged for many hours, he was removed to the Hôtel-Dieu, where he arrived without having awoke from his torpor. At that moment his eyeballs were convulsively

directed upwards and outwards. About 48 hours after the commencement of this cataleptic phase, a convulsive attack marked its termination.

Two examples are given of his attacks of automatism and unconscious cerebration. One of them is as follows : X— was already known as a very able musician, and could lead an orchestra. It was this circumstance in his past life which revived the following mimicry in him. X—, in a state of spontaneous somnambulism, rose ; he did not walk without care ; everything shows that his mind, suddenly roused by some idea or remembrance, urges him in a very definite manner. With perfect co-ordination of movement he is occupied in placing in the middle of the room a great number of chairs, which he proceeds to take successively, and places them by the neighbouring beds. He forms a circle with them, in the centre of which he places himself. With a slight gesture he appears to command attention ; then his arm is alternately raised and lowered ; he marks the time, quickening or slowing the movement, indicating by an appropriate gesture the passage of the piece that ought to be played with force or with sweetness. Sometimes in the midst of this he precipitates himself towards a point in the circumference traced by the chairs ; his contracted physiognomy expresses discontent or anger. It is evidently one of his musicians who has incurred his reproaches on account of a false note. The piece ended, he bows repeatedly to an audience, whose applause he doubtless hears.

M. Mesnet, in whose service at the Hôtel-Dieu he was placed on the 25th January, suddenly fixed his eyes upon those of the patient with all the intensity and penetration possible. In less than a minute the state described as hypnotic fascination was induced, and a striking spectacle was witnessed by M. Garnier. Irresistibly attracted to him who has taken entire possession of his being, his eyes fixed upon his, X— never quits his hypnotizer. He walks with him, runs with him, follows all his movements, and, however rapid these may be, he is helplessly attracted to him as if by magnetization of the look which always regards him face to face, eye to eye. He is insensible, on the other hand, to all external solicitations, totally analgesic, in sole and exclusive communication with him who has performed the *prise du regard*, and completely under his orders. Strange as these phenomena appear, it may be affirmed that they are not opposed to what is known regarding functional and nervous disorders in hystero-epileptics whose disorders are better studied and interpreted every day.

With regard to loss of memory, the energetic denials of the crime imputed to him must be noted. Strange to say, in answer to one of the questions put in the court, he related successively how he had proceeded. "I have carried successively," he said, "the articles of furniture into the court of the house, and it was at the moment when I was going to carry the second footstool that I was arrested." This declaration appeared to contradict all his previous protestations. But

subsequently when he was reminded of this he was astonished, appeared to believe that he was ridiculed, and he affirmed, as before, that he had no memory of the theft with which he was charged. How account for these contradictions? The loss of memory, which is in the present instance an all-important fact, ought it to be rejected? and the contradictions of the accused, ought they to be regarded as proofs of the groundlessness of his allegations? M. Garnier does not think so, and it seems to him possible to give a scientific explanation of this fact by connecting it with certain examples, well known, of double consciousness in analogous neuroses—a double consciousness—the consequence of which is the creation of two entirely distinct existences with this remarkable feature; that all the fragments of the one are so bound together as to overlap the fragments of the other. Observation has for a long time proved that the somnambule remembers during one attack the events of a previous attack, although he has no remembrance whatever of the normal condition. According as X— was in the state of the primary normal condition, or in that of the secondary pathological condition, he was able, without any insincerity, alternately to deny and admit an act which, in consequence of its having been performed during an attack of somnambulism, only recurred to his memory in a subsequent similar attack. His strange attitude when brought before the magistrate, his singular somnolence, certainly corroborates, as M. Garnier says, this interpretation. The moral shock produced by his arrest, his accusation, numerous interrogations, were so many circumstances calculated to unhinge his already unstable organization. It is not surprising that they had the effect of accelerating the nervous phenomena to which he was so subject, and as a consequence to induce, at short intervals, periods of unconsciousness and loss of memory. In describing the intellectual condition of this prisoner before the act with which he was charged, in showing that during life he suffered from frequent absences of mind, we have, to a large extent, been able to connect this act with somnambulistic automatism. Committed with the dominant unconsciousness which already indicated a morbid condition, it was but a link in the unbroken chain of various disorders, an episode in a long pathological history. Everything then conspires to prove that X—'s whole mental equilibrium had for a long time been upset, and that he was on the 25th of November under the domination of a vertiginous condition of a special nature; that he had experienced, in short, one of those eclipses of the conscious *ego*, comparable to those which had been previously observed in his case, and which were subsequently induced in M. Garnier's presence.

In a social point of view, the gravity of the act is of the utmost importance, its scientific aspect being of only secondary interest. Whether it has reference to theft, a public outrage, arson, suicide, or homicide, the medico-legal fact is at bottom the same. In any case it is always the same automatism, which presides over the deed, which

hands over the individual without any safeguard and without distinction to all the risks of temptations spontaneously arising, and freed from every counterbalancing force or conflict of motives.

To prove that an action charged against anyone is dependent upon an unconscious impulse, is to propound at the same time the principle of absolute irresponsibility, a fact to which we are led by rigorous deduction. It is M. Garnier's entire conviction that X— is a hystero-epileptic, subject to grave convulsive attacks, and to somnambulism leading to automatic acts, among which must be reckoned the theft with which he was charged. It is impossible to hold a man responsible for the acts he commits, whose will undergoes such suspensions and even complete effacement.

Such was the report on X— made by M. Garnier, with the result that the accused was found "Not guilty." Then follows a quotation from M. Mesnet's "Communication to the Academy of Medicine," March 15th, 1887. When, under this physician's observation, he passed into the somnambulistic condition, M. Mesnet, pointing out to him one of his internes, said, "Observe the chain of M. ——. Do you see it?" The patient answered, "Yes." "Well! I order you to seize it during my visit to-morrow, and then immediately escape." The patient looked surprised; his limbs shook, and there was a very evident expression of discontent, but he did not reply. I said to him, "I command you, I tell you." He responded, "Yes," with a quick, jerky gesture. I then awoke him. He was absolutely ignorant of what we had just done and said. The next day, on coming into the ward, I found him chatting freely with the medical students. I asked him various questions, to which he replied satisfactorily. He said he was waiting for M. Garnier's arrival, &c. During my visit he accompanied the students, and talked to them, but with less spirit than usual, and voluntarily approaching M. ——, the interne, whom he seemed to regard with special interest, soon fixed his eye on the chain visible in the half-open coat, and he became more and more absorbed in its contemplation. His pupils became dilated, his face assumed a singular and very painful expression; respiration and pulse became rapid, and his face red in patches. After having several times inclined his head and body towards M. ——, he slowly made a step forward; then after some hesitation he rapidly removed the watch and chain, and ran out of the ward. I found him immediately afterwards arrested by the attendant, who had followed him. He was in a state of complete mental aberration. I blew upon his eyes, and immediately he returned to his previous state. I asked him what he had been doing. "Nothing that I know of." I drew from his pocket the watch he had taken, saying that he had stolen it from M. —. He exclaimed, "I am not a thief," and began to cry.

The medico-legal importance of these indisputable facts must be obvious to everybody.

We do not believe that in our days a forensic physician would endorse so singularly severe a judgment as that which Fodéré enunciated in regard to the acts of somnambulists. "Far from considering these acts as insane, I regard them as the most independent that can be performed in human life. I see somnambulism as a crucible, in which thought and intention are absolutely separated from their material conditions." The formula "dormiens furioso aequiparatur (Tiraquean)" is certainly nearer the truth, and it is necessary to acknowledge that the jurist has here much more reason on his side than the above physician.

Since M. Garnier's report, X—'s attacks of spontaneous somnambulism have been very frequent, in spite of the sensible improvement in his moral disposition ; in spite, also, of a marked decrease in his nervous excitement under the influence of treatment by large doses of valerianate of ammonia.

He scarcely passes a day or night without having automatic impulses and corresponding movements. There happened quite recently a most exciting scene. At half-past six a.m. on the 19th of March, X— rose and went out of the ward, going over the balustrade of the gallery which surrounds the garden of Hôtel Dieu. Thence he descends on the cornice, whose line of inclination seemed as if it must throw him upon the ground from the second story. He remained there, however, without apparent difficulty, and slowly advanced upon the edge of the wall towards the façade of the court of Notre-Dame. A crowd soon collected, and was alarmed to see the somnambule, who, having arrived at nearly the end of the cornice, tried to return by feeling his way on the wall. For an instant the anxiety was extreme among the crowd, for he seemed to hesitate in his movements, and to be surrounded by insurmountable difficulties. At last he was able to turn round and avoid the fall, which seemed to all the spectators imminent. He then returned ; from the cornice he easily regained the balustrade, upon which he walked like a gymnast, counting "1, 2 ! 1, 2 !" and he thus passed over it twice in an opposite direction. In going he had avoided with care the flower-pots arranged on the platform, and which were removed immediately after his first walk. In returning, and at the moment when he arrived at the point where he found what hindered his course, he stopped. His expression indicated astonishment, and immediately he was seized with nervous tremors. Without loss of time some one seized hold of him. A convulsive crisis occurred, and rendered it necessary for five or six persons to master him. He then became calm, and awoke. He knew nothing of the perilous exploit he had performed.

3. *German Retrospect.*

By W. W. Ireland, M.D.

Incoherent Readings in General Paralysis.

Dr. G. Rabbas (" Zeitschrift für Psychiatric," xli. Band, 3 Heft), following out the observations of Dr. Rieger, has, in a course of careful experiments, tested the capacity of the insane for reading in progressive dementia. He found that in general paralysis the power of reading was diminished, and in the end totally destroyed, and that this incapacity commenced at an early period of the disease. The words were given wrong or altered in a senseless manner, with a faint connection with the text read, whereas in functional insanity as well as senile dementia the power of reading was long retained even in cases where the mental fatuity seemed greater than in given cases of general paralysis. When maniacs could be induced to read they read on quickly without any regard to stops or beginnings of sentences, but they generally read correctly, without alteration of the words. This early loss of reading power in general paralysis, like the alteration in writing, is of great use for a differential diagnosis.

On Feeding the Insane.

Dr. F. Siemens, in an article published in the " Archiv.," xiv. Band, 2 Heft, and xv. Band, 1 Heft, argues at great length that the danger of voluntary abstention from food has been much exaggerated. Having fortified himself with cases of patients who lived forty or even sixty days without eating anything, he assures us that Indian fakeers allow themselves to be buried alive for a month and often fast for six months. This appears to be a generalization from the story published by Braid about the fakeer buried alive at Lahore, which I consider to be a mere case of Indian jugglery. The well-known experiment of Tanner, Bourneville's fasting idiot, and other instances mentioned by Dr. Siemens at least show that man can want food a good deal longer than we used to believe. Dr. Siemens calculates that it would take eight weeks before a man in an average healthy condition of body would die through want of food. Eating, in fact, has become too much an amusement, and so much time is taken up with our numerous meals, and all the conventional ceremonials thrown around them, that one is inclined to welcome the Spartan thesis of Dr. Siemens. He records several patients who abstained from food for a fortnight at a time, and then becoming hungry began to eat. One who indulged in water lived twenty-one days.

We can see how Dr. Siemens' views may form a new departure for the liberty of the insane. Dr. Siemens draws a tempting picture of the way he surrounds his fasting patients with all kinds of delicacies till they are tempted to eat secretly or openly, without being sub-

jected to the shocking despotism of being fed through a tube pushed into the stomach. Dr. Siemens thinks himself warranted in stating the following conclusions :—The voluntary refusal of food, with proper control of the bodily and mental pursuits, is not attended with the great dangers which have been hitherto assumed. This refusal of food owing to alterations of innervation and changes in the body is but one symptom of a diseased condition. A patient in this condition, avoiding undue exposure and sparing of exertion, can pass a long time with very little nourishment. So long as he does not pass more than fourteen days without food or water, and more than forty days without food but with the use of water, and so long as no more than 40 per cent. of the bodily weight is lost, no durable bad effects will follow such prolonged abstinence.

Dr. Siemens holds that the dangers from forcible feeding are, on the whole, greater than those which follow prolonged abstinence. Besides the risk of injury in pushing the tube into the stomach he thinks that there is danger in forcibly introducing quantities of food without considering the patient's diminished powers of digestion and assimilation. In many cases Dr. Siemens has found feeding with the spoon to overcome the difficulty. In others the patient can be persuaded or tempted by the physician or attendant to eat enough to keep him in life till the disgust of food has passed away. Dr. Siemens admits that there are cases in which the patient sinks and dies through lack of food. These are generally elderly persons afflicted with hypochondria and melancholia. He goes so far as to assert that such patients are not to be saved even by artificial feeding. Patients at all vigorous who abstain from food never abstain so long as to put their lives in danger. The only class of patients with whom he would use the stomach-pump are cases of long insensibility and paralysis.

Dr. Siemens has, as yet, with the means indicated, succeeded in dealing with all the cases of abstinence from food which have hitherto come under his hands. Should they fail he lets us know that the resources of science are not yet exhausted ; save in the cases defined, his revolt against forcible feeding is absolute.

We have heard Dr. Conolly express the same sentiments; Dr. Rayner has for many years avoided having recourse to instrumental feeding.

On the Unequal Therapeutic Effects of the Two Electric Currents, and the Aid to Diagnosis in Treatment through the Examination of the Pupil.

Dr. Engelskjön, of Christiania, has given to the world, under this attractive title, three articles filling 100 pages of the "Archiv. für Psychiatrie" (xv. Band, 1 and 2 Heft, and xvi. Band, 1 Heft). The mere promise in the "schematisch" outline given in the first paper was enough to excite attention and hope, and the subsequent papers must have rendered neurologists desirous that such important results

should be confirmed by further investigations. We are all conscious of the empiricism in which treatment by electricity remains, and would gladly have some clear scientific rules to guide us. The conclusions which Dr. Engelskjön has reached are the result of five years' attention to electro-therapeutics. According to him it is no matter whether the galvanic current should be an ascending or descending one in treating nervous disease. The diseases which improve under warm baths receive benefit from the interrupted current. Those diseases which derive benefit from galvanism are characterized by contraction of the actively dilated vessels, while those which derive benefit from faradism are characterized by widening of the spastic contracted vessels. The one kind of electricity causes a sinking, the other a rise of the temperature of the limbs to which they are applied. Thus a cold and cyanotic condition of the hand was made to disappear by the action of the interrupted current.

Dr. Engelskjön considers that these currents do not act by any influence on the nerve trunks or terminal nerves, but upon "the local vaso-motor ganglionary apparatus." He takes hemicrania as an example of a disease which is dependent upon a morbid action of the vaso-motor nerves. He believes that hemicrania is met with in two forms, one dependent upon the diseased action of the vaso-constrictor, the other upon the vaso-dilator nerves. He thinks neuralgia of the trifacial can also be divided into two similar forms. He found in his practice that those cases which belong to the vaso-constrictor form could be cured by the faradic stream, while those belonging to the other form were cured by the galvanic stream. Those cases of hemicrania which derived temporary relief from the inhalation of nitrite of amyl derived benefit from the interrupted current, while the constant current either aggravated the distress or had no effect. Out of seven cases of hemicrania only one was unmanageable to the electric treatment.

During the course of his experiments Dr. Engelskjön has observed a peculiar reflex connection between certain parts of the human nervous system (for example, between the brain and the spinal cord), so that a fit of melancholia or the first change in the functions of the brain leading to neurasthenia may show itself, perhaps, in an altered temperature of the patient's hands. Under these circumstances the organ first attacked ought to be the principal object of the application of electricity, and it generally requires to be treated with a different kind of electrical current than is found beneficial with the organ last attacked. The two parts of the cerebro-spinal axis to which the treatment should be directed are the medulla oblongata and the cervical enlargement of the spinal cord. In order to reach the first organ with its great nerve-centres for the vessels Dr. Engelskjön applies one electrode upon the back of the neck, the other upon the larynx under the chin. To reach the cervical portion of the spinal cord he puts one electrode upon the sixth or

seventh cervical vertebra, the other upon the manubrium of the sternum. The kind of current from which benefit is derived he calls positive; the other he calls negative. There are cases of combined diseases where the brain requires one kind of electricity and the spinal cord another. Not unfrequently the negative current, whether galvanic or faradic, aggravates the symptoms which the other relieves.

Dr. Engelskjön does not seem to be timorous of the passage of powerful currents through the nerve centres. He has seen a slight swimming in the head changed into such giddiness as compelled the patient to be for hours in the horizontal position, or a faint humming in the ears magnified into a roar like thunder or the sound of a steam-boat by the imprudent application of the wrong form of electricity. He has often observed a headache, or an attack of hemicrania, a sound in the ears, or great depression of spirits disappear through the electrization of the central organ. On changing the form of electric current he has seen the symptoms of disease promptly return. On the other hand, he has seen cases, in which the distress was only aggravated by the application of the electric currents to the nervous centres, much relieved by the application of electricity to the skin. He observes that cases of neurosis following upon the depressing emotions, such as terror, sadness, or anxiety, are best treated with the faradic current, whereas cases of overwork, strain, or forced watching derive benefit from the galvanic current. Such of his patients who gave symptoms of mental derangement seem principally to have suffered from the lighter forms which are met with out of asylums; but in the third article, which is devoted to the results of his clinical experience, Dr. Engelskjön makes some bold claims to have cured cases of insanity through electricity. He observes that passage of the current through the head is sometimes useful, but not unfrequently injurious. He seems to think it generally sufficient to pass it through the medulla oblongata. There is mention of a patient suffering from melancholia and spinal neurasthenia who recovered under the application of the interrupted current to the medulla, and the constant current to the cervical portion of the cord. We are also told of another recovery from the same complaints by the sole use of the interrupted current.

Case No. 21 describes a man of 50 who had suffered for three months from deep melancholia. After faradization through the medulla oblongata he raised himself suddenly with a pleasant smile, crying out, "Now it is gone." The melancholy returned next morning, but was again dispelled. A third return was met by the same means. The patient then went back to his work, though still a little "nervous."

Case 22, a painter with aboulomania, was treated with similar means and similar success. Dr. Engelskjön adds in a note that he has just cured an insane woman of her delusions in a few sittings by galvanization of the skin of the forearm. It is to be hoped, for the welfare of humanity, that our Norwegian colleague is not of a too sanguine temperament.

Not the least remarkable of Dr. Engelskjön's discoveries was the relation of the curative effects of electricity to the visual area of the retina ascertained by observations with the perimeter. If the electric current be positive, *i.e.*, if it act favourably on the diseased condition, the visual area becomes enlarged; if, on the contrary, the current be negative, there is a diminution of the visual area. As this reaction generally comes on immediately, such perimetric observations are of great use in determining what kind of current should be chosen.

Doctors Eugen Conrad and Julius Wagner, Assistant Physicians at the Lower Austrian Asylum in Vienna, have tested the effects of the constant and interrupted currents on the medulla oblongata in thus causing widening and contraction of the visual area. They found that such extensions and contractions actually took place under the influence of electrical currents, but they regard their central origin as doubtful. They think that these oscillations in the extent of the visual area may be owing to the peripheral effects of the electric currents on the muscles of the eyelids, and the varying degree of their opening. They even observed oscillations to take place in the normal condition, and measuring the visual area at different times when no electricity had been applied.

They came to the conclusion that the so-called electro-diagnostic examination of the retina to assist in choosing the different currents of electricity for the treatment of central neurosis is of no use.

The criticism of these two young Austrian physicians, which was published in the same number of the "Archiv." (xvi. Band, 1 Heft) as Dr. Engelskjön's third communication, provoked a reply from the Scandinavian neurologist in a further number of the "Archiv." (xvi. Band, 3 Heft) which fills fifteen pages.

Dr. Engelskjön finds fault with the methods of inquiry used by his critics, and declares that he has paid enough attention to all sources of fallacy, that he has examined the visual area about 6,000 times, while his censors, in testing his observations, only used the perimeter on seven persons besides themselves. He gives some interesting cases in which there was, under the influence of electric currents, such an extension or contraction of the visual area that the patients themselves were conscious of an increased brightening or darkening of the scope of sight. In conclusion our Norwegian colleague states that the excitability of the visual area to electricity, and the possibility of defining a fixed visual area, are the foundations of his method of investigation, and upon them it will fall or remain standing.

Treatment of Insanity by Electricity.

Dr. Heyden ("Zeitschrift," xlii. Band, 1 Heft) gives the details of his trials of electricity upon twenty-five patients in the private asylum of Endenich. In using galvanism he applied the anode upon the forehead, the kathode upon the neck, or one pole behind each ear, beginning

generally with the cross current. In some cases he tried general faradization.

The cases subjected to treatment by galvanization of the head were nine in number, of general paralysis two, melancholia two, and one of circular insanity. General galvanization and faradization were tried in three cases of melancholia, and the so-called galvanization of the sympathetic in one case of hypochondriacal insanity.

No favourable influence was observed in any case of general paralysis of more than three months' duration. In one patient where the disease was known to have lasted three months the improvement was very decided. He has now been eighteen months out of the asylum, and was partially occupied during six of these months. In two other early cases there was a less degree of improvement, and in two instances the patients slept better. In three cases of melancholia of no long duration there was a disappearance of the painful sensations and improvement in the mental condition. In general the most favourable results were obtained where there were peripheral disorders of innervation of central origin, especially where the genito-urinary system was affected. In one patient menstruation was speedily brought back; in another more slowly.

Case of Ergotin in Melancholia.

Dr. Luton, of Rheims, in 1881 indicated a mistura exhilarans, which consisted of a teaspoonful of the ethereal tincture of ergotin of the Paris Pharmacopœia, with a tablespoonful of a ten per cent. solution of hypophosphite of soda, which acted like laughing gas. He recommends this to be tried in hypochondria, melancholia, and other states of depression. Dr. H. Nebel determined to try the exhilarating mixture on the patients in the asylum at Gorlitz. He succeeded in effecting some considerable improvement in melancholia and hysterical insanity. The mixture seems to have the power of inducing a feeling of general well being, with exaltation of spirits somewhat like that following a moderate dose of generous wine. Though the ergot was given for months there was no appearance of ergotism.

In one patient, an elderly woman past menstruating, affected with katatonia simplex, melancholy with stupor, who required to be fed with the stomach tube, the effect of the mixture was very striking. On the third day after taking the mixture she began to be cheerful, and no longer required artificial feeding. On the fourth day her spirits became boisterous, and during two months she continued to make progress, though there was a week's relapse of no great gravity. In the end the lady returned to her family much improved. The mixture was tried in twelve cases, three of which were males. In five cases there was no improvement, and in one of hysterical insanity positive harm seemed to follow. The effects of the drug seemed very favourable in a patient affected with puerperal insanity. The patient took daily four grammes of tincture of ergotin with 15 grammes of

a 10 per cent. solution of hypophosphite of soda. She recovered in three months, with one period of exacerbation at the end of the second month. Dr. Nebel confirms the statements of Luton as to the exhilarating effects of the mixture. It is noteworthy, he remarks, that a drug which is known to have the power of causing contraction of the vessels should be the principal ingredient of a mixture which within a single hour has the power of causing so much excitement. Dr. Nebel is inclined to hope that the effect of this medicine will be of an enduring character.

In a postscript following Dr. Nebel's paper there is a *résumé* of the experiments of Dr. Adam, who made some trials of the exhilarating mixture while interne in the asylum at Fains. He appears to have given the doses only once or twice to five patients suffering from melancholia. In one case the condition of depression was favourably modified, but the effect passed away in a short time without altering the usual condition of the patient. In another the patient was so much confused that she could not recite her prayers. The beads of her rosary appeared to her to be like strawberries, and she laughed at the illusion. As Dr. Adam has done little more than study the effect of a single dose he is scarcely in a position to make any generalization. His summing up, however, is unfavourable. He does not think the exciting effect of the mixture would have a sufficiently permanent effect in modifying chronic melancholia, and fears that prolonged use of ergot would be unfavourable to the health of the patient.

The Lunatic Asylum at Cairo.

Dr. Mendel, of Berlin, gives in the "Zeitschrift für Psychiatrie" (xlii. Band, 2 Heft) a description of a visit to the asylum near Cairo. He takes occasion to say that the English are, of all foreigners, the most hated in Egypt, possibly for the same reason as the Germans are unpopular in Alsace and Holstein. The asylum is maintained by the Government at a daily cost of about elevenpence per head, which Dr. Mendel considers a low charge. The patients are generally quiet and apathetic, and he saw no marks of injury or othæmatoma.

The most interesting feature was the number of patients whose insanity was put down to the enjoyment of hashisch; these amounted to about one-third in the admissions. Dr. Battaglia, the Medical Officer, remarked that amongst those described as "imbecile" there are a good many in whom the abuse of hashisch has been the proximate cause of the aggravation of the insanity already existing, and of the necessity of their detention in the asylum. Although the sale of hashisch is punishable by imprisonment, and its indulgence punishable by fine, there are in Cairo a great many shops in which this drug is sold or smoked on the premises. It may be observed that the use of chang, another preparation of the Cannabis Indica, is one of the commonest causes of insanity in our asylums in India. Out of

403 discharges, insanity was attributed to hashisch in 159, of whom 94 were sent out cured, 27 improved, and 38 not improved. General paralysis is rare. The total mortality is about 6 per cent.

Gheel.

Dr. Hesse read a paper upon "Gheel and its Insane Colony" to the Medico-Psychological Association, which met at Hanover in 1884. We have noticed that of late the shares of Gheel have been falling. Dr. Hesse's description is not calculated to raise the credit of that concern. In some places of the Gheel district he saw huts such as in our country are only to be found in the West Highlands or Ireland, with bedding and furniture of a very poor description. The patients, he writes, spend the whole day with their keepers; they work with them, or sit if they are not able to work in the smoky room. Order or cleanliness is scarcely seen in any of those houses. Everywhere there is dirt and the most sordid poverty. The keepers have, in general, only a small patch of ground, and give themselves to agriculture as far as the dreary desert is capable of tillage. Few of the inhabitants have a cow, the most of them only a goat. They depend much upon the board which they get from their patients. Butcher's meat is an article of luxury, which, at most, is seen in small quantities on Sunday. Their ordinary fare is potatoes with vegetables, or fried with dripping. In one of the houses the housewife told Dr. Hesse that nothing had been given to the patients up to mid-day but coffee with rye bread. In the older parts of the Gheel colony he found things somewhat better, especially in the village of Steelen. He praises especially the expertness and quickness of the people in managing lunatics.

Dr. Hesse thinks the supervision of the insane female patients very faulty, and expresses his belief that the regulations given out for the care and diet of the lunatics are often neglected and evaded. He proposes a number of reforms ; but it seems impossible to carry out these effectually without totally altering the character of the poor Flemish peasants, who eke out a small subsistence by economies practised on their insane boarders.

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4. *English Retrospect.*

Asylum Reports, 1888 (*for* 1887).

Aberdeen.—Considerable pressure on the accommodation for pauper patients continues, but it has been diminished as far as possible by boarding out suitable cases and transferring the fatuous to workhouses. It is satisfactory to learn that the Directors have had under consideration the best method of providing the necessary buildings. including a general dining-hall, a general bath-room, and a separate chapel.

The female attendants are now in uniform; the result is said to be satisfactory.

In spite of the over-crowding the deaths from phthisis are very few—only four in a total of 42.

Barnwood House.—Various structural improvements are in progress or under consideration. This hospital continues its good work, and it is very satisfactory to find the Committee so heartily assisting Dr. Needham in his energetic and enlightened management.

An important litigation is in progress between this hospital and the Crown. A claim has been made for income tax under Schedule D, and a large increase under Schedule A, and for inhabited-house duty. It is intended to fight the matter out and to obtain a definite and final decision. The Committee express their regret that most of the other hospitals have not joined in the attempt to resist the claims of the Crown.

A second assistant medical officer has been appointed.

Bethlem Hospital.—Several matters of interest are referred to in Dr. Savage's report, which we should like to quote if space admitted. The development of the system of voluntary boarders has been marked, and proved satisfactory, although often only the readiest means of getting a patient ultimately certified.

This asylum is among the few in which all the statistical tables of the Association are given.

Berkshire, &c.—Mr. Doughty has succeeded the late Dr. Gilland. He seems to show commendable zeal, and the condition of the asylum is very favourably reported on. There is nothing in his report calling for special mention except that the number of deaths from phthisis is small, only four in 63 deaths; and that the out-door exercise of the patients receives sufficient attention.

Birmingham. Winson Green.—The following paragraph is from Dr. Whitcombe's report, and contains his views as the result of 17 years of official asylum life:—

The asylums of England and Wales vary in extent of accommodation from 300 to over 2,000, and at the present day it appears to be the fashion to build huge palatial residences for numbers approaching the latter. Is this right? I am compelled to believe that our acute and chronic insane require separate and distinct accommodation and treatment, and that at the present time we are not doing all that we might for promoting recovery in the more curable cases, but are becoming lavish and extravagant in providing accommodation for chronic patients. Turning to the Commissioners' Report for 1886 we see, as a result of the present system of dealing with our insane, that in 1877 the recovery rate was 37·30 per cent. on admissions, and in 1886 41·16 per cent., the average for the 10 years being 39·91 per cent. Is this satisfactory? I think not, and I believe that the system of mixing acute and chronic cases is to a large extent the cause of this poor result. I fear that the recent cases placed in large wards may receive too little attention in the crowd, and no one, I think, would consider the phrase "Similia similibus curantur" as applicable to the scientific treatment of insanity. In Australia reception houses are to be found, and one at Darlinghurst has been occupied for 20 years, and is said to be doing excellent work; whilst in Germany are to be seen wards in general hospitals set apart for

the temporary, or first treatment of insanity. I am strongly of opinion that a great step towards the more successful treatment of insanity would be made by the provision of separate hospitals or reception houses for the observation of all recent cases, many of which recover so rapidly when removed from their ordinary surroundings, that it is a pity they should receive the stamp of asylum cases ; and when the time comes for extending your asylum accommodation I venture to suggest such provision for your consideration.

It is stated by Dr. Whitcombe that it has become customary for the coroner to send independent medical men to examine the body before holding an inquest instead of entrusting this duty to the asylum medical officers. Personally he views this change as a salutary one and likely to increase public confidence.

Of the 70 deaths during the year nine were due to phthisis.

Birmingham. Rubery Hill.—Dr. Lyle's report contains some sensible remarks on the employment of patients.

The total deaths were 24 ; of these four only were due to phthisis.

Bristol.—The following paragraph from Dr. Thompson's report is of great medical interest. The general opinion of the profession is that general paralysis of the insane is incurable ; but cases do occur, especially syphilitic ones, which almost make it possible to believe that the usually accepted conclusion is too sweeping. Then it must be remembered that the diagnosis of general paralysis is not always a very easy matter, and probably all asylum physicians will admit that they have failed to recognize it in its earliest stage, and have also declared a patient to be suffering from general paralysis who recovered and remained well for several years. Such painful but most salutary lessons lead most men to be very guarded in diagnosis and to incline to the belief that it is much more likely for the most experienced asylum physician to blunder than for a genuine case of general paralysis to recover. Dr. Thompson says :—

On referring to Table VII. (p. 22), it will be seen that three patients, who at the time of admission were recognized to be general paralytics, recovered during the year. This fact, no doubt, will give rise to some sceptical remarks which will emanate from my friends the critics who review the annual reports of lunatic asylums. Perhaps I may tell them, in anticipation, that I am convinced that the patients were general paralytics when admitted, and that they have recovered. All the cases were received comparatively early as to the duration of the disease, and one, admitted so long ago as 1880, might have been mistaken by a physician of less experience than myself for acute mania without complication. I firmly believe that general paralysis is a curable disease; but, as I said in my last report, it is never or seldom recognized until the case is driven into an asylum by urgent or distressful symptoms. When medical men engaged in general practice are taught to recognize this disease in an early stage, and to treat it, then shall we have grounds to hope that few such cases will find their way into an asylum at all.

The deaths during the year number 37, and include five cases of phthisis and one of general tuberculosis.

Cambridgeshire, &c.—Considerable structural additions are in progress. It is estimated that they will cost £22,000. The Visitors state that this work has been taken in hand "under pressure from the

Commissioners in Lunacy." This is an admission of which they should be much ashamed, as they should have required no compulsion to do what was an evident duty.

Mr. Rogers's report is strikingly brief. In it he suggests the building of cottages for married attendants and that they could be used in the event of an epidemic. There can be no doubt as to the advantage of such cottages; but he will probably find that they make very inconvenient hospitals.

The deaths numbered 33, and seven of these were due to phthisis.

Cornwall.—Dr. Adams states that not one case was admitted during 1887 due to intemperance in drink. He naturally considers this very satisfactory; but is Dr. Adams quite sure of the fact? The new buildings are occupied and are found convenient. Although there are now some 650 patients in the asylum, there is only one assistant medical officer. At their inspection in April the Commissioners understood that the appointment of a second assistant would not be delayed. Undoubtedly such an officer should be appointed at once.

We would direct attention to Table IV. It is hopelessly wrong, and seems to have been prepared by a person who did not understand what he was about. Better have no Table at all.

The 55 deaths include 11 due to phthisis pulmonalis, and one due to tuberculosis.

Cumberland.—This asylum is evidently conducted with much energy and success; and employment and exercise receive due attention. At the date of the Commissioners' visit as many as 181 men were employed to a greater or less degree on the land.

Dr. Campbell makes various suggestions in view of contemplated lunacy legislation, but they need not be reproduced here, as we are more or less familiar with them. On external influences as modifying the character of mental disease he says:—

The character of mental disease is undoubtedly much affected by many circumstances, more especially those which operate on the physical condition. During 1887, as well as in the three preceding years, the depressed state of trade generally has markedly influenced the character and form of mental disorder in those admitted here. Never in any previous period of four succeeding years have so many cases of melancholia been received. During prosperous times acute excitement is the prevalent form of mental disorder, and the experience here shows that possibility of cure in such cases is very much greater than in those of the opposite type.

Great passing events usually exercise a determining influence on the character of the delusions exhibited by those who are just on the verge of insanity about or shortly after such events have been the topic of the day; for instance, during the period just before and subsequent to the Queen's Jubilee, six patients, two men and four women, were admitted, who held delusions that they belonged to the Royal Family, or had been recipients of Jubilee Crown honours. I have no doubt similar facts could this year be chronicled in other asylums in the kingdom.

The total deaths numbered 45, and included seven from phthisis pulmonalis and one from tubercular pneumonia.

Denbigh.—At last the Visitors have resolved to do something in the way of providing adequate accommodation for the pauper lunatics of the district. In their report they acknowledge that there are 123 female patients in excess of the statutory accommodation—an amount of over-crowding which may certainly be described as disgraceful, and which should not have been allowed by the Commissioners.

The Visitors are much annoyed at the criticisms by the Commissioners at their last visit, but we may say that all experienced in actual asylum administration will agree with most of them.

In addition to his usual report, Mr. Cox has a special one on the condition of North Wales with regard to insanity.

The deaths during the year numbered 50, and include nine due to phthisis and one to epilepsy with phthisis.

Derby.—So far as we are aware, it is a very rare occurrence for Guardians to complain of the cost of maintenance of pauper lunatics in county asylums; but Dr. Lindsay has lately had to defend his management in this respect, and we think he has done so successfully. We would urgently advise him not to look upon a low weekly charge as the chief object of asylum management, and not to allow pressure in the direction of economy to deter him from a liberal and enlightened course of action. Any who are interested in this subject will find statistics, &c., bearing on it; if nothing new is shown by them, they still have their value.

Devon.—A dormitory for the continuous supervision of epileptic and suicidal patients has been built, and is in use. It accommodates 67 patients, and is in charge of two attendants. Numerous minor structural improvements were effected, and much done to make an old building equal to a new one.

The report by the Commissioners is not inserted.

Out of 76 deaths only seven were considered due to phthisis pulmonalis, but only 18 were verified by post-mortem examination.

Dorset.—Mr. Symes has been succeeded by Dr. P. W. MacDonald in the management of this asylum.

The following paragraphs from Dr. MacDonald's flowery report are of importance, as they refer to a pressing question in asylum management—the occurrence of phthisis in the insane. He says:—

A glance at Table V. reveals the fact that lung disease has, primarily or secondarily, been a factor in over 50 per cent. of the total number of deaths.

This large number of deaths in which pulmonary disease has played a part, might be taken as pointing to some sanitary defect, over-crowding, or other germ-producing cause, but that this was not so I think I shall be able to show.

The majority of the cases were primarily predisposed to lung disease, and had for many years shown symptoms of grave pulmonary lesions, so that their demise was neither a surprise nor unexpected. All were aged, and those who had no hereditary predisposition were so reduced by senile changes that a very slight cause was all that was needed to extinguish the flickering flame.

The highest mortality was during the months of March and April, when there was no fewer than 13 deaths. In this number are the majority of the cases where lung disease was the first and main cause of death.

The excessively low temperature and long continuance of east winds during these months were simultaneously igniters of disease and extinguishers of life.

That these two elements were the principal causes I have no doubt, and the fact that there has been an immunity from all diseases of an infectious or contagious nature is a further proof that the state or condition of the asylum was not at fault.

We would earnestly recommend Dr. MacDonald not to be too easily satisfied on this subject, but to inquire into all matters likely to induce lung disease in a feeble population—bad ventilation, insufficient day and dormitory accommodation, insufficient out-door exercise, and so on. As the weekly charge is only 7s., the amount and character of the food should be thoroughly examined. We sincerely hope to find that the weekly charge next year will be considerably increased. In a small asylum like Dorset it is impossible to help suspecting that there is an injurious economy in the management.

Exeter.—This is a new asylum, and, so far as we can judge, it has been started under very favourable auspices.

Dr. Rutherford's report is largely occupied by an account of the building, site, water supply, &c.

The lighting is effected entirely by electricity. The patients are photographed on admission.

None of the deaths were due to phthisis.

Glamorgan.—By the opening of the annexe the number resident has risen from 681 to 837. The new buildings seem on the whole to be satisfactory, but the heating of the wards is not what it should be.

The following paragraph from Dr. Pringle's report will interest the mind that dotes on statistics :—

Now that all the pauper lunatics belonging to Glamorganshire are accommodated within its borders, I have thought it might be of more interest to compare their numbers and relations to the sane population with those of England and Wales generally, and I think the figures are striking and satisfactory. The Registrar-General has been good enough to give me an estimate of the population of this county up to the middle of 1887, which he places at 598,345, and on this I have based my calculation. The total pauper lunatics chargeable to Glamorgan on 1st January, 1887, were 1,118, and allowing 14 for the increase of the half-year (28 being the yearly average increase of the past 16 years), the proportion of the pauper insane to the sane population is 1·89 per thousand, or 1 to 529. Taking all England and Wales, the proportion is 2·56, or 1 to 390. This county has therefore an insane pauper population of 1,132 instead of 1,533, which it would have if calculated on the data for the whole kingdom, or, in other words, it has 35·4 per cent. fewer lunatics. With the other Welsh counties, Glamorgan compares even more favourably, their ratio being 2·63 per thousand, or 1 to 381. The position in which this county stands as regards lunacy is, I believe, owing to the very mixed character of its population, from the influx of the healthiest and most energetic men of the neighbouring counties, attracted by the high wages of a mineral district, and forming marriages with the daughters of the land. It is well-known that the most insane counties are the stagnant agricultural ones, where there is little enterprise, and like the country of the Lotus Eaters, "All things always seem the same," and intermarriages constantly occur.

Of the 66 deaths, 11 were due to phthisis pulmonalis and one to tuberculosis.

Glasgow Royal Asylum.—Sound common sense is always the leading feature of Dr. Yellowlees's reports. They are refreshing reading when compared with many others, for they avoid all the usual faults. They are short, yet always contain useful information, are never disfigured by miserable details, *e.g.*, accounts of Jubilee tea parties, nigger entertainments, &c., and are grammatical.

The following are extracts from Dr. Yellowlees's report :—

The admissions of the former class (private patients) are influenced by many circumstances, and very largely, especially as regards the lowest rates of board, by the ability of their friends to pay for them. There are 120 patients who pay £40 a year or under, and among these financial considerations too often occasion both undue delay in resorting to asylum care, and premature removal from it. The prolonged commercial depression tells so heavily on the class from which these patients are drawn that in many cases the insane relative must either be kept at home or at once placed on the parish. This, doubtless, explains in great measure why the private admissions have been fewer for the last seven years.

It is greatly to be regretted that the rigidity of the Poor Law administration cannot afford earlier help in cases where insanity is the reason which compels recourse to parish aid. Pauperism thus induced is quite unlike ordinary pauperism ; and it is pitiful and painful to see a whole family, formerly in comfort, dragged down to utter penury, and parting with all their savings for the support of an insane member, because parish aid cannot be given till their own resources are exhausted. It seems a bitter return for their carefulness and sobriety that their very virtues should thus deprive them of the help which a drunken and penniless neighbour would receive at once.

There is nothing new to report as to care and treatment. Much attention is given to the disorders of general health, on which brain derangement so often depends, as well as to the immediate brain conditions. Out-door exercise and occupations in all its forms, are diligently used as invaluable aids to treatment, and amusements are provided in sufficient variety and frequency. The moral treatment receives full attention—the timid are encouraged, the despondent cheered, the torpid roused, the wayward admonished, the foolish repressed, and the feeling is maintained as far as possible with all that they are under the care of friends whose only object is their welfare. The utmost liberty consistent with the benefits of the patients is gladly allowed, but proper restrictions are not relaxed for the sake of unwise indulgence. The lines of restriction are as wide as welfare permits, but such lines are needful, and afford invaluable support when judgment and self-control are weakened. As the asylum is intended for the care of insane folk, there is no pretence of keeping open doors, and no affectation of unreal liberty. Escapes, or struggles for escape, are regarded as undesirable, and the walls of the airing grounds have not been pulled down. The wise and skilful use of seclusion and of sedatives is found to be beneficial, and is therefore deemed incumbent. The welfare of the individual patient is regarded as the paramount indication for treatment, and it is not sacrificed by blind or bigoted adherence to any so-called "system." These principles of treatment are here reiterated, for other views have been bringing reproach on Scotch asylums, and have acquired a notoriety explained only by their novelty. The asylum treatment of the insane is not an empty name, and the true asylum physician can never degenerate into something like a benevolent hotel-keeper.

Well done ! Yellowlees ; sensible to the last.

The total deaths numbered 26, and seven of these were due to phthisis pulmonalis.

Gloucester.—The asylum estate has been enlarged by the purchase of 84 acres for the price of £3,392. The second asylum is partially occupied, and various improvements have been effected in the older building.

During the year 88 deaths occurred, and in 13 of these phthisis was either a primary or a secondary cause.

Govan.—As bearing on the health of patients in asylums, the following extract from Dr. Watson's report is useful :—

Nearly 39 per cent. of the deaths was due to lung diseases, a large proportion, affecting our death-rate very unfavourably. Though this high death-rate is undoubtedly in part due to over-crowding, it must be borne in mind that owing to the extensive boarding-out, to which I have already referred, and other causes, the population consists more largely than usual of physically broken down and infirm patients.

The outbreak of erysipelas which took place at the end of 1886 and the beginning of 1887 resulted fatally in one case, to which reference was made in last year's report. There being suspicions regarding the condition of the house drainage, the House Committee directed their attention to it, and ordered a thorough examination, with the result that much of the plumber work was renewed, the connections were made tight, a number of outside drains were relaid, and ventilating traps were introduced at suitable places. The good effect of these alterations is evident in the greatly increased freshness of the lavatories and closets; and so far there has been no return of erysipelas.

Hants.—The improvements in the drainage have been completed. It is, therefore, not surprising that the "Committee are happy to report that throughout 1887 there has been no case of typhoid fever, and this is the first year by many that such has been the case, and they believe that the sanitary condition of the asylum is now in a far better state than at any previous period."

Of the 101 deaths during the year, 14 were due to phthisis.

Ipswich.—Only four of the 21 deaths during the year were due to phthisis.

Killarney.—Dr. Woods says that, taking the population as the same as at the last census return, the following would be the proportion of lunatics in each county :—

Clare	1 in 267
Limerick	1 in 247
Waterford	1 in 285
Cork	1 in 382
Tipperary	1 in 306
Kerry	1 in 448

It is believed that in addition to these numbers there are many idiots and imbeciles at home or wandering at large.

As far as possible all the clothing used in this asylum is Irish material.

Forty-seven deaths occurred during the year. Of these 15 are returned as due to "thoracic affections." The table showing the causes of death is a very imperfect one, and should be more detailed.

Hereford.—The pressure upon the accommodation for pauper cases is so great that it has been necessary to discharge all the private cases, and send a considerable number of harmless paupers to workhouses. In discussing this state of affairs, the Visitors say :—

If guardians would grant more liberal out-door relief in the case of harmless lunatics residing with their friends or relatives, might not many chronic harmless cases be kept at home, and not be sent, as now, to the asylum? Some measure of supervision beyond that in use at present would probably be required.

The Government subvention of four shillings to all pauper lunatic cases in asylums, which is not allowed to lunatics in workhouses or with friends, is no doubt an inducement to send all cases into asylums.

If the Government would allow a similar subvention in all cases where the lunatic is under proper supervision, and is certified as properly cared for, the relief to asylums would be considerable.

The Commissioners notice that during their visit, in February, the temperature in some of the wards was as low as 48°, and in none higher than 52°. Such temperatures must be injurious to health, and occasion much suffering. Yet only two deaths were due to phthisis.

The statistical tables are of course excellent, being prepared under the eye of one who really understands figures. It is lamentable to notice how frequently the well-devised tables of the Association are filled up in a slovenly manner, and how the most important table of all, Table II. A, is altogether shirked, because it involves a little extra trouble.

Holloway's Sanatorium.—This hospital continues to flourish financially, and is in a position to extend assistance to many cases.

Numerous structural changes have been effected or are in progress with the object of making this building suitable for the purpose for which it was erected.

It is quite evident from his report that Dr. Phillips has not his troubles to seek.

Hull.—The former water-supply has completely failed, and the asylum is now supplied with town water.

The death-rate continues exceedingly high, no less than 16·66 per cent. on the average number resident. This is largely due to the prevalence of general paralysis and other fatal organic nervous diseases. In only four cases did phthisis cause death.

Isle of Man.—There is not much to comment upon in this report. The condition of the asylum appears to be good. The Committee observe that "Dr. Richardson continues to manage the asylum in a most efficient and satisfactory manner." The percentage of recoveries, calculated on the admissions, stands at 35·2. The mortality is low, only five per cent. of the mean number resident.

Lancashire. Lancaster.—No fewer than 12 deaths were due to dysentery, and two to chronic diarrhœa. Dr. Cassidy has used every means in his power to get rid of these complaints, and hopes to do so ultimately. He is not yet prepared to offer any opinion as to the causation of these very troublesome diseases.

The following paragraphs from his report may be read with interest :—

The encouragement of self-restraint, and of sane and healthy thoughts and habits, are part of the daily routine, and I hold that a fostering of the moral and religious sentiments is in no small degree a part of the physician's duty. To take a purely physiological view of this subject, the development of the religious feelings and emotions is, as is generally admitted, the last stage so far —the crowning glory—in the progress of humanity, and the evolution of the higher man; and as insanity, though not itself, I believe, a reversion of type, tends to induce reversion, it is fitting to counteract this tendency by encouraging sentiments and feelings which might otherwise become extinct. Probably as much good is done here by our Sunday evening meetings, for sacred singing, etc., as by any other one means for civilizing and humanizing the patients.

With regard to medical or therapeutical treatment, every year brings us such stores of new drugs, new preparations and improved methods, that there is some danger of our suffering from embarrassment of riches. Although personally I am inclined to think that we might fight the battle equally well with older weapons, it is our duty to try every means which promises a likelihood of useful service. Therefore we have experimented with electricity, with massage, and with new drugs, such as the hydrobromate of hyoscine, which, in our experience, has no advantages over the older extract of hyoscyamine; with hypnone, which has been found useful in some maniacal cases, and in the excitement of general paralysis, though in much larger doses than are usually prescribed; with urethan, which seems to have little to recommend it; with paraldehyde, an advantageous sedative and hypnotic in the insomnia and restlessness of senile insanity; with bromidia, antipyrin, and other antipyretics, respecting all of which I might write at considerable length, were this the proper place. After all, the staple medicines now are, and always must be, plenty of good food, fresh air, and exercise, with tonics, hæmatinics, etc., as subsidiary agents.

The deaths numbered 204, and of these 64 were due to pulmonary phthisis.

Lancashire. Prestwich.—In connection with the death of a patient, strangled during the night by another patient who was assisting one of the night attendants, the Commissioners strongly condemn such a form of occupation. They say :—

Whilst desiring to encourage to the fullest extent the useful employment of the insane, and recognizing its value as a remedial agent, we cannot refrain from expressing a strong opinion that this particular employment ought not to be resorted to. We think that patients should not be placed in any position of authority over other patients. They are irresponsible, and obviously, from the nature of the case, unfit to be trusted to interfere; while in the special matter under consideration, there must be a considerable temptation to the night attendants to delegate to their patient-assistants duties which they should themselves perform. That this may, and does, occur, notwithstanding supervision by head night attendants, is shown by the case to which reference has been made.

From Mr. Ley's very careful report we extract the following paragraph :—

Among the incurable admissions are comprised many examples of the two extremes of mental failings: the insanity resulting from the simple decay of old age, and the mental unsoundness dating from childbirth [birth?]. Several of the latter class came from their homes, where they had been kept under the care of their relatives; others had been treated in special hospitals for the special training of this class of patients; and others had been resident for

varying periods in the wards of the union workhouses. At one time these cases would not have been sent to an asylum, but the experience of late years shows that parents part with their imbecile children, and children relieve themselves of the burden and responsibility of looking after their insane parents with greater alacrity now than formerly. There is also a growing tendency on the part of workhouse officials to rid themselves of the trouble of managing imbecile children, and looking after old people in their second childhood. These latter cases are certainly troublesome to manage, but, unfortunately, the asylum can do them little good; they are merely sent to be nursed and taken care of for a while, and then die. With regard to the imbecile children, as the workhouse authorities will not take charge of them, they must, of course, remain here until such time as due provision is made for their proper treatment elsewhere, but it is clear that they are out of place in a lunatic asylum, and it has often been my experience to observe unpleasant results from the presence of imbecile children among the adult insane. There is a great want in this county of some institution where idiots and imbeciles of the poorer class can be maintained and receive the necessary training and treatment their condition demands.

Two hundred and ten deaths occurred during the year, and in 29 of them phthisis pulmonalis was the primary or secondary cause of death.

Lancaster. Rainhill.—The annexe is now partly occupied. It affords accommodation for 1,000 patients, and is described by the Commissioners as "a most excellent asylum."

The following case affords another illustration of the evils following the detention of insane criminals in ordinary asylums. Dr. Rogers says:—

This man, who had been received into this asylum from Woking Prison on the expiration of a sentence of penal servitude for unlawfully wounding, had abstracted a knife from the pocket of a workman employed in road-making on the estate, and had concealed it until he had what he thought a favourable opportunity for using it. Fortunately his murderous intentions were unsuccessful, as neither attendant was injured, although their clothes were cut. For this he was brought before a magistrate and committed for trial at the assizes, and he was subsequently ordered to be confined during Her Majesty's pleasure.

Under the operation of recent legislation, such cases as this—persons having become insane whilst undergoing sentences of penal servitude—are, at the end of their sentence, no longer technically "criminal lunatics," and are, therefore, transferred as ordinary pauper patients to county asylums; but they are a far more dangerous class than those to whom the term is now legally applicable, and if I might devise a name for them I would call them "lunatic criminals," implying that they were "criminals" first and "lunatics" afterwards. It is by this class that murderous assaults in asylums are generally committed.

Dr. Rogers states that during the thirty years that he has been superintendent he has, for various reasons, preferred to engage men and women as attendants who have had no previous asylum experience. We have no doubt that his results have been favourable, and we recommend a similar line of conduct to all asylum superintendents.

Of the 65 deaths during the year 14 were due to phthisis and one to tuberculosis.

Lancashire. Whittingham.—Dr. Wallis refers to several important matters in his report, but space compels us to limit our extracts to the following:—

As I reported in my last annual statement, I had in contemplation some scheme of systematic instruction for the attendants and nurses. In furtherance

of this I have broken ground, and am taking several classes through a course of lectures comprising some notion of a very elementary character of the body both anatomically and physiologically. Further than this, I am striving to give my pupils some idea of the nervous system, the faculties of the mind in health and disorder, with some clinical illustrations of the latter. Next they are instructed, after the manner of ambulance classes, how to aid in surgical and medical emergencies, bandaging, etc. Finally they receive some instruction in the peculiar nursing and attention required by the various classes of insane patients. It is, perhaps, too early in the day to say much as to the result of this teaching, but I am satisfied that some will profit to the highest possible extent, others in a less degree according to their aptitude and zeal, and that the results to the patients in the increase of intelligent observation of their wants and peculiarities, higher views as to the scope of their work on the part of the attendants, a greater amount of good feeling towards their charges, and increased power over them for good, will amply repay me for any personal trouble I may have expended on them.

Twenty years ago the percentage of recoveries to admissions was 36·19 per cent. in the County and Borough Asylums; last year it was 40·91 per cent. This proportion of recoveries is hardly satisfactory, and might, in my opinion, be largely increased. For that purpose we must have hospital wards entirely separate and detached from the chronic wards, for the reception of all recent and curable cases, which should never be allowed to be mixed up with the chronic and incurable. In these wards we should have such a staff of medical officers as to give no man a greater charge than from one hundred to one hundred and fifty patients, so that he could give a sensible portion of time each day to each individual case, noting every passing change in it, and never losing the full personal knowledge and grasp of it, which is essential, in my mind, to its successful treatment. Pathological research should also be systematically undertaken. In all this he should be assisted by a large staff of intelligent and highly-trained attendants, capable of observing accurately and assisting in the constant efforts made to bring about the recovery of each particular patient. To allow of this, a training school for nurses and attendants should exist in every well-appointed hospital for the insane. Occupation should be found for every person, suited to his or her condition, change and amusement should also be available on a larger scale than obtains at present, and convalescent wards also kept exclusively for that class would be indispensable. All this amounts to a semi-revolution in the present system, under which we must be content with the present recovery rate of about 40 per cent., whereas we might reasonably hope, under better auspices, for something like 60 per cent. Our asylum medical officers have at present an average of four hundred or more cases to look after, and our attendants are too few in number, and have to be on duty from 12 to 16 hours a day. Is it to be wondered at, under these circumstances, that our staff is constantly changing, and that we had 114 persons to engage last year? Our American brethren, who have visited our asylums in considerable numbers during the past few years, have recognized the weak points in our asylum administration, and reforms in the direction which I have pointed out are in progress in that country. I shall follow these proceedings with the greatest interest, and hope I may live to see similar measures carried out in our English asylums. In the meantime, I am thankful to report that we have had comparatively few instances of misconduct amongst the officials during the past year.

All this sounds splendid on paper, but we do not hesitate to say it is an illusion. Grant Dr. Wallis all he asks for, and he will never cure 60 per cent. of his patients. He may rest satisfied that he is at the present time curing just as many curable patients as would recover under the circumstances he covets. There is no reason what-

ever why the conditions present in a good county asylum should prevent patients recovering, if they are curable. Has it never struck Dr. Wallis that the percentage of recoveries is about the same in all asylums in which the same class of patients are admitted? A certain number of cases will get well in any asylum in England; and a certain number are doomed from the time of admission not to get well. It is surprising that so much optimistic nonsense should be talked and written by the superintendents of some asylums. Every conceivable advantage has been secured for recent cases in the clinics abroad, with the result that not one more curable patient is cured than Dr. Wallis can and does cure in the Whittingham Asylum. Again, we cannot but smile at the charming *naïveté* with which Dr. Wallis describes the favoured asylum physician who will be enabled "to give a sensible portion of time each day to each individual case, noting every passing change in it, and never losing the full personal knowledge and grasp of it." It is, unfortunately, impossible to secure such attention by any arrangement of this kind, and in all probability this happily circumstanced physician would do less individual work than Dr. Wallis does at the present moment in his large asylum, where he doubtless leaves the chronic cases to his assistants and attends himself to those of an acute and curable character.

During the year 125 deaths occurred; of these 43 were due to phthisis pulmonalis, and two to tuberculosis.

Leicester and Rutland.—It is reported that the accommodation for female patients is insufficient, and that its provision is under consideration. Twenty-five females are boarded at Northampton.

Twelve of the 46 deaths were due to phthisis pulmonalis.

Leicester.—It is pleasing to note, on account of its extreme rarity, that the asylum received a legacy of £50. On a former occasion it received one of £100.

Dr. Finch reports a remarkable falling off in the number of admissions during the last quarter of the year. It was quite without precedent during the 19 years the asylum has been opened, and no adequate cause can be found to account for it. In October only one patient was admitted, in November three, and in December two, making a total of six for three months; whereas the usual *monthly* average is nine or ten.

Of the 51 deaths during the year, only four were due to phthisis.

Lincoln.—All asylum physicians must join cordially in the good wishes expressed by the Commissioners for Dr. Palmer in his retirement—health, long life, and happiness.

The circumstances connected with his pension are best stated by the following extract from the report by the Visitors :—

It was with great regret that the Committee of Visitors in April last received from Dr. Palmer, the Medical Superintendent of the Asylum, an intimation that failing health compelled him to place in their hands his resignation of the appointment which he has now held for nearly 40 years.

Having regard to the exceptional and invaluable services which Dr. Palmer has rendered for so long a period to the Institution and the County and Boroughs which maintain it, and to the fact that at the age of 72 he was asking for a superannuation allowance for which the law gave him a right to apply 25 years ago, the Committee of Visitors thought it their duty to recommend a grant to him of an annuity of £600. The severe depression, however, which weighs so heavily upon the ratepayers of this and other counties, made some of the Courts of Quarter Sessions and other contributories unwilling to confirm so large a grant, and disappointed the hopes of the Committee of Visitors that their recognition of Dr. Palmer's claims would be supported to the full by all the bodies whose sanction was necessary to make the grant a valid one.

The subject having been reconsidered, the Committee of Visitors made another grant of £500, instead of £600, a year, and the smaller grant having received the requisite confirmation, now takes effect. The Committee of Visitors cannot allow Dr. Palmer to sever his connection with the asylum, which he has served for so long a period and with such conspicuous zeal and ability, without expressing their conviction that any degree of merit to which the Institution has attained is due in great measure to his admirable management, and they sincerely hope that relief from his onerous and responsible duties may restore him to health, and bring him the rest and enjoyment which he has so well earned.

Ninety-four deaths occurred during the year; of these 21 were due to phthisis, and one to tubercular pneumonia.

London.—Plans have been prepared for extending the asylum by building wings at the east and west extremities of the southern façade, affording, thereby, additional accommodation for 128 patients, viz., 64 males and 64 females, with the requisite rooms for the attendants, bath and store rooms, and four fire-proof staircases, two to each wing. Plans were also submitted for general bathrooms and head-attendants' rooms for the male and female divisions.

The Commissioners very wisely refused to sanction these enlargements until the asylum estate was enlarged. Steps have been taken in this direction. At present it consists of only 33 acres. The addition of 100 acres would not be too much.

As is well-known, the medical superintendent, Dr. Jepson, has retired, not unpensioned, and is succeeded by Dr. E. W. White. It is quite evident that Dr. White has his hands full, and that all his energies and abilities will be required to enable him to overcome his numerous difficulties.

During the winter a course of lectures, by Dr. Greenlees, was given to the male and female attendants, on the nursing and care of the insane.

Only four out of 22 deaths were due to phthisis pulmonalis.

Middlesex, Banstead.—The following paragraph is from Dr. Shaw's report :—

We have been rather more successful than usual in arriving at the causes of the insanity in the patients admitted, but the account is still very unsatisfactory because of the large number put down as "unknown." This defect arises not from want of inquiry on our part so much as from the difficulty in arriving at a first conclusion in any given case as to what is really the cause. In many instances the cause is manifest enough, but over and over again cases arise where the life-history of a patient is fairly known, and still even here it may be impossible

for an experienced medical man to say what the cause of the symptoms was. How much less can we expect to get satisfactory information under the usual circumstances in which patients are sent here? Table X. must therefore be regarded as of little practical value. Even in the tables given by the Lunacy Commissioners, with all their facilities for acquiring information, the proportion of "unknown causes" is large; and, curiously enough, it does not seem possible to arrive at more accurate results in the cases of private patients (where better and more accurate information might have been expected) than in the pauper class.

Of the 240 deaths during the year, 61 were due to phthisis pulmonalis.

(*To be continued.*)

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The Quarterly Meeting of the Medico-Psychological Association was held at Bethlem Hospital on Wednesday, the 16th May. The chair was occupied by Dr. Needham, the President, and among those present were Drs. A. Aplin, Fletcher Beach, J. W. Stirling Christie, P. E. Campbell, H. Chapman, W. M. Cassidy, E. M. Cooke, J. H. Douty, E. East, W. Eager, J. E. M. Finch, F. C. Gayton, R. Greene, J. D. Hawksley, W. H. Higgins, R. M. Henson, W. M. Harmer, T. Lyle, S. E. Lisle, E. Mead, A. T. Myers, P. W. MacDonald, H. Maudsley, John Merson, H. Newington, J. H. Paul, H. T. Pringle, H. Rayner, Rogers, Robinson, Stephen, Sutherland, Savage, R. Percy Smith, E. Swain, Hack Tuke, C. M. Tuke, D. G. Thomson, G. Thompson, F. W. Thurnam, J. K. Will, E. W. White, J. A. Wallis, T. O. Wood, M. A. Wilshire, &c.

Dr. SAVAGE said in consequence of communications received from members of the Irish Branch Association it was thought that by passing the following resolution and sending it to the Lord Lieutenant they might, at all events, strengthen the hands of their fellow-members in Ireland, viz., "That at a meeting of the Medico-Psychological Association of Great Britain and Ireland it was proposed and duly seconded that the following resolution be forwarded to the Lord Lieutenant:—That as the post of medical superintendent of asylums requires special training, it is highly desirable that vacancies should be filled up as they occur by men who have had that special training afforded by residence as medical officers in asylums. That the Association would beg to submit this resolution to the notice of his Excellency."

Dr. HACK TUKE seconded the resolution. He said the question had been raised owing to the fact that there was a vacancy, and the officers of the Irish Branch had petitioned his Excellency, in any appointment that might be made, to take into consideration the fitness and experience of anyone who was appointed instead of placing an outsider in the post. It was hoped that the Association would support the Irish Branch in this matter.

The resolution was agreed to.

Dr. RAYNER announced that the following gentlemen had been nominated for election as members:—J. W. Lichfield, L.R.C.P.Lond., Assistant Medical Officer of the County Asylum, Fareham; W. Maxwell Little, M.B.Edin., Assistant Medical Officer of the County Asylum, Thorpe, Norwich; Arthur Lofthouse, M.R.C.S., &c., Assistant Medical Officer of the County Asylum, Nottingham; and John Butler, M.B., Assistant Surgeon H.M. Convict Prison, Portsmouth.

The ballot having been taken, these gentlemen were declared to be duly elected.

Dr. CAMPBELL PATRICK exhibited a pathological specimen showing a cyst-like structure situated in the corpus striatum, containing blood. He said he had never seen anything resembling it before, and there were no symptoms during life to point to it. The subject was an imbecile, 36 years of age, who had been in the asylum about six years. She had never had fits, and there was no sign of paralysis. She died suddenly on the previous Sunday, the only symptom being that she was a little sick during the night; but as she was menstruating at the time nothing was thought of it.

Dr. Maudsley communicated "Some Remarks on Crime and Criminals." (See Original Articles.)

The PRESIDENT said Dr. Maudsley had given them a paper of great interest, and one which was essentially practical. Of course the subject dealt with was one which came before them all at different times, and their action with reference to crime and criminals had a great influence upon the prestige and position of the members of their speciality, and also of the profession to which they belonged. He quite agreed with what Dr Maudsley had said with reference to the straining of the imagination—for he could call it nothing else—in the recognition of what was called disease in crime. A very considerable number of criminals who, it was said, were insane, were simply ordinary criminals, who deserved hanging, at all events. The great rock on which they were in danger of splitting was the rock of attempting to prove too much—of attempting to say that there was no such thing really as criminality, and that every criminal impulse depends upon disease. It was possible it might be so; but, at all events, they had not arrived at a position in which they could practically say so on scientific grounds. In all cases of crime in which disease was suspected or alleged, the only thing to do was to take each particular case and endeavour to form their opinion from the facts—not to generalize, and say that because it was a case with certain symptoms therefore it belonged to a certain class. He thought it was very desirable that there should be a little more consistency amongst the judges than there was at present. No medical mind could possibly receive the decision in the Macnaghten case as at all satisfactory; the whole of the facts of disease and of medical knowledge were against it. If the judges would even take the propositions in that case, and lay them down consistently and definitely in all instances, of course they would know what to be at; but unfortunately the judges did nothing of the kind. Sometimes evidence was admitted and sometimes it was rejected. As long as that existed there could be no satisfaction, and no practical good could result from medical men coming into Court and giving evidence in criminal cases. He hoped to hear an interesting discussion upon this most practical paper.

Dr. HACK TUKE: Although Dr. Maudsley would probably not care to be associated with angels, there was one particular in which they bore a certain resemblance, for Dr. Maudsley's visits to the meetings of the Association were like theirs, "few and far between." They were, therefore, all the more indebted to him for having come to this meeting and read a paper. He quite agreed with what had been said with regard to what he had called the pretentious speculations abroad at the present time, especially in Italy, and in other countries. Very much had been said and written lately in regard to crime that required criticism, and Dr. Maudsley's paper was well-timed in that direction. Of course it was very desirable that men like Professor Benedikt should make observations with regard to the brains of criminals as long as the generalizations he might be disposed to make were carefully sifted and nothing was accepted which was not really founded upon actual scientific observations. They could not, therefore, regret that he had devoted his time to the subject, and had taken enormous pains in his investigations. On the other hand, as Dr. Maudsley had well said, it would be absurd to suppose that

all persons who committed so-called crime did so in consequence of any actual defect or disease of the brain. The classification Dr. Maudsley had given was, he thought, a very good one, and he was very glad to hear him recognizing so clearly the fact of moral deprivation in association with more or less integrity of the intellect. Dr. Maudsley had always consistently supported what was called, perhaps unfortunately, the doctrine of moral insanity, and he had now reiterated in the clearest possible manner his belief in the existence of moral defect, either hereditary or acquired, in association with a condition of intellect which would not be regarded as a sufficient ground for escaping punishment. At the present time, when some prominent writers in America and elsewhere had spoken strongly against this doctrine, it was extremely fortunate that Dr. Maudsley had so strongly represented his belief. Dr. Maudsley had been sometimes described as a believer in man as a mere machine—a mere creature of organization—and therefore not a free agent; but what he had just said entirely dispelled that position, because he had distinctly spoken of some persons being responsible and other persons as not being responsible for the crimes which they committed, and if that was the case, and there was responsibility, there must be a certain amount of free will, and the punishment which Dr. Maudsley had advocated in these cases was alone justifiable if there was free will and the accompanying responsibility. Therefore, if nothing else came of the paper than that, it was a very important conclusion.

Dr. Rayner wished to join with previous speakers in thanking Dr. Maudsley for his most interesting and valuable communication. While fully agreeing in what had been said with regard to Dr. Benedikt's investigations with reference to the three classes of criminals, he thought that investigations limited to the comparison of the degrees of development in such cases with the average development of non-criminals, and also between the special kind of insufficient brain-development and the special crimes committed, were of importance, and might be of value. Of course, if too much was claimed for them they became absolutely injurious. With regard to his suggestion that the great line for research which was open to them, and which, he feared, had been very much neglected, was the question of individual development, he most fully and thoroughly concurred with Dr. Maudsley. The room for the advancement in their appreciation of the development of mental disorder and consequent brain-defect was not only on the positive side of investigating cases in which mental disorder had resulted, but very much more on the negative side of those cases, where, having a predisposition, they yet escaped the development of insanity. If in every family in which there had been one individual becoming insane and three or four who had not, they could get a complete reason why one had become insane and the others had not, they would learn as much, if not more, from the negative side (those who had not become insane) as they would from the opposite side—the individual who had become insane.

Dr. Fletcher Beach mentioned the case of two patients who exemplified in a shocking way what Dr. Maudsley had described as cases of moral imbecility. Both cases were perfectly sound intellectually, but they would both be criminal if allowed to be in the world. No doubt there were a large number of cases of this kind in their asylums. Of course, the only thing one could do in a case of that kind was to develop the moral nature as much as possible. It could not be done so much in the insane, where there were diseased brains, but in the case of imbeciles, by working on their moral natures, he thought something might be done.

Mr. Herbert Stephen said that having listened with great interest to Dr. Maudsley's paper, he was disposed to sympathize with its protest against the idea that there was what he described as criminal neurosis pervading every criminal, and that every criminal was a diseased person who ought to be put into a hospital and treated for disease. That was the inference practically drawn from such theories, but it was not a necessary or a correct inference.

Granting, however, that it were true in its fullest extent that every criminal was a person suffering from some bodily symptom, which was described as criminal neurosis, then he should say, as a lawyer interested in the criminal law, that that did not make any difference to him, and that if that were so he would then invite specialists in these matters to examine accused persons so far as was practicable, and if they detected such symptoms he should accept that as evidence of guilt, and should proceed with moral certainty to decide that the accused persons were guilty of crime, and to cause them to undergo the consequences of their crime. Of course, in saying that, he did not refer to the class of criminals in whose case the defence of insanity was commonly raised, but only to the ordinary common criminals in whose case it was not raised. With regard to such, he would say that if such a man was suffering from criminal neurosis that made no difference in his attitude towards him. He would also say, Dr. Tuke having made reference to the great question of free will, that if it was a fact, or if he was satisfied that it was a fact that a criminal was a machine, even that would not affect him; because, if he was told that such-and-such a man who committed theft, did it because of all the circumstances which surrounded himself and his ancestors, and because his brain was so made that it was certain that he would do it if the opportunity arose, and he did it because that was the kind of machine he was, then he should reply, "Very well; then I am a kind of machine that is so made that it will put him in prison for doing it." He took Dr. Maudsley's word for it that the theory of a criminal neurosis was not true; he did so, of course, gladly and humbly; but if it were true he should not be afraid of it any more than he should be afraid of the theory that men were nothing but automata; and that if they knew enough about it they could always tell exactly how they would act under all circumstances, because that was what the theory of necessitarianism really came to. Being there as a lawyer, he thought he ought to say just a word on a subject on which the President had touched, where he complained justly that the judges did not always express themselves in precisely the same way as to what questions might or might not be asked when the question arose whether a person accused of crime was insane or not. It was quite true some judges would not allow a doctor who was called into the box to be asked any question except, "What symptoms did you observe?" or to state what inference he would draw therefrom. Other judges allowed those questions to be asked. The last time he (Mr. Stephen) had the pleasure of meeting Dr. Savage he was prosecuting a man for murder, and Dr. Savage was called by the defence to say that the man was not fit to plead. Being asked the state of mind of the man, Dr. Savage said, "Well, I think he is insane." He was asked, "Do you think he can understand that he is going to be tried?" and Dr. Savage said, "No, I do not think he can." He (Mr. Stephen) confessed that if he had been the judge he should have said, "Why do you not?" but the judge on that occasion was quite content with that, and upon those two or three questions the man was sent to Broadmoor. It was quite true that judges did behave differently, but the medical profession ought to make some allowance for that, because judges after all were human, and sometimes had their ways and their fancies. One judge took a dislike to mad prisoners, and would be very particular in having proof of their madness, while another judge would be much less strict in what he allowed to be asked or not. The one question which underlay all the disputes between lawyers and medical men was this: It did not follow that because a man was what was called mad they were not going to punish him; it did not follow that because he had got some disease affecting his mind, and had some disease affecting his mind when he did a particular thing, that he had not committed a crime by the law, and that they were not going to punish him for it. They would perceive that this agreed with what he had said about the view he would take of criminal neurosis if its universal existence in criminals were satisfactorily

established. Those who made the law, and those who administered it as well as they could, admitted that there was some sort of mental disease affecting the mind so much that it was useless and wrong to punish a man for what he did when affected by it. But in other cases it was not so, and what they wanted was that medical men who were experts in such matters should give such information as would enable lawyers to decide whether in any particular case before them the disease from which the man suffered was of such a nature that it was not right that he should be punished for it. Of course, some such question as this was finally left for the jury to decide, "Did he understand what he was doing, and did he know what sort of thing it was?" That was always the question which the jury had to decide, and in the present state of the law, he thought on the whole that it was one that could not be much improved upon. He apprehended, speaking of course with great diffidence, that most of those present were of opinion that there were persons suffering from mental disease whom it was desirable to punish for certain things that they did. He did not know whether that proposition would commend itself to them or not; if not he was very sorry, because that was undoubtedly the view which the law took of the question of mental disease.

Dr. Rogers said he wished to pay his own individual thanks to Dr. Maudsley for his paper. With reference to the remarks of Mr. Herbert Stephen, it had been suggested that members of the legal profession should meet members of their own medical speciality and talk over these matters to see if a *modus vivendi* could not be found to prevent the very often unseemly contests that took place between judges and witnesses in courts of law, and in which the witness got the worst of it, because the judge could not be answered back. Mr. Stephen had said he would treat a person as a machine, and if that machine was made so that it must commit crime then he would punish the machine. But what about the maker of the machine? If a cannon went off in the street and killed a man it was not the cannon that had done it, but the man who fired it. Now, in the case of criminals, women who, while in a puerperal state, murdered children, these people themselves were not to blame, but the fault lay with the people who had the charge of them, and had failed to notice the condition they were in. Were they to punish those people? Rather punish the people who ought to have taken care of them. On the other hand, if they punished one insane criminal they must punish them all, and if a woman murdered her child in the frenzy of madness she ought to be hung just the same as a paralytic who stole something and was sent to penal servitude. The only way of dealing with them was the consideration of each individual case. The tone that judges adopted towards medical witnesses was very often extremely offensive. On the last occasion in which he had to appear in Court in a case of this kind at the Assizes he had an order from the Home Office to examine the prisoner. He stated his view of the case, but the judge said he did not put any reliance upon the evidence of medical experts; everybody could tell when a person was insane. If so, then why did not they confine her before she committed this act? The very fact of their not having seen the condition she was in was a direct answer to the judge's dictum. However much opposed their views might be, it was a very great pleasure to have members of the bar entering into friendly discussion on these matters, although as far as Mr. Herbert Stephen had gone, it did not seem to bring them very much nearer to any result.

Dr. Hack Tuke wished to ask Mr. Stephen whether he agreed with Lord Bramwell when he said, in an article in the "Nineteenth Century," "My argument goes to the length of punishing insane people more than the sane, cruel as it may seem, in order to deter them."

Mr. Stephen said that, although as far as he went he would certainly punish the insane, still, if it could be shown that no man whose mind was

affected by disease could be in the least affected by punishment or restrained by fear of punishment, it would alter the case very much. He was certainly not prepared to go along with the statement of Lord Bramwell.

The discussion then closed.

SPECIAL MEETING ON PARLIAMENTARY BILLS.

This meeting was held at the close of the Quarterly Meeting, and a notice of it will be found under "Occasional Notes of the Quarter." We append a letter from Dr. White, addressed to the Hon. Secretary, referring to the resolution passed at this meeting:—

City of London Lunatic Asylum,
Stone, near Dartford, Kent,
June 10th, 1888.

Dear Dr. Rayner,—At the last general meeting the proposition of mine, which was seconded by Dr. Cassidy, was as follows:—

"That the *minimum* pension given be that of the modified Civil Service scale, suggested by the Pensions Committee of the Medico-Psychological Association, and that all officers and servants of County and Borough Asylums be entitled to claim this minimum."

Upon learning the action already taken by the Parliamentary Committee, we decided to withdraw this in favour of (1) the appeal to the Treasury; and (2) the joint standing Committee petitioned for by the Parliamentary Committee.

Yours, very faithfully,
Ernest W. White.

Dr. Rayner, Hon. Secretary, Hanwell.

IRISH MEETING.

The Quarterly Meeting of the Medico-Psychological Association was held in Dublin, May 17, 1888. Present: Dr. Patton (in the chair), Dr. Ashe, Dr. Cope, Dr. Courtenay, Dr. Drapes, Dr. Eustace, Dr. Moore, Mr. Conolly Norman, and Dr. Patton.

In connection with the minutes, Dr. Drapes inquired what steps had been taken with reference to the Superannuation Bill.

Dr. Courtenay stated that little had been done, as the Bill was read a second time before anything was heard of it. All the action taken was through the kindness of Mr. Madden, who had got the Government to introduce a clause allowing Irish officials to claim if they so wish to be superannuated under the Civil Servants' Act as at present. He was sorry to say the officials of Irish asylums had acquiesced in and supported a measure which, though it would have the effect of increasing their pensions, would at the same time result in leaving the power of granting or refusing them entirely at the will of the local Boards of Asylums. Exactly the opposite course had been adopted in England, where steps were being taken to introduce a clause in the Local Government Board Bill fixing the superannuation of the lunacy service at a lower rate than under the scale at present in force, but making it compulsory as in the Civil Service.

The following memorial was forwarded from the Assistant Medical Officers of Irish District Asylums, with a request that it should receive the support of the Medico-Psychological Association:—

To His Excellency the Marquess of Londonderry.

May it please your Excellency,—

A vacancy having recently occurred among the medical superintendents of the Irish District Asylums through the lamented demise of Dr. Barry Delaney, of Kilkenny, we, the undersigned, being the assistant medical officers in the various Irish asylums, venture to beg your Excellency's favourable consideration of our case, hoping that your Excellency may think fit, as on a former occasion, to confer the vacant office on one of our number.

The post of Resident Medical Superintendent is, as your Excellency is well aware, one of great responsibility, and eminently requires special experience. The necessity for this special experience has been universally recognized in all other countries.

The position of Assistant Resident Medical Superintendent is an arduous one and not highly paid. The duties are monotonous, harassing, and responsible, and are of such a special nature that to fill this office for a few years greatly unfits a man for the adoption of any other line of practice.

For these reasons we confidently trust that your Excellency may graciously continue to look favourably upon our claims, and to afford us that hope of promotion within our department which animates other members of the public services.

We have the honour to be,
Your Excellency's most obedient servants.

It was proposed by Dr. Courtenay and seconded by Mr. C. Norman, "That the Associations are in accord with the subject of the memorial that the Assistant Medical Officers are pre-eminently qualified to be promoted to the vacancies which occur in district asylums, and trust that his Excellency will consider their services where possible, and with this view that a Committee be appointed to draw up a memorial to that effect."

The following Committee was appointed:—Dr. Patton, Dr. Myles, Mr. Conolly Norman, Dr. E. Maziere Courtenay.

Dr. Cope then read his paper on "A Case of Chorea with Insanity."

Dr. Eustace stated that he had met with one case in his practice of a similar nature. In his case, however, the symptoms were much more severe, and terminated in death. A young officer, stationed at the Curragh, married, of strong and healthy build, was sent into his asylum suffering from mania, with extreme choreic movements of both sides almost resembling epileptic convulsions, so much so that the only means found for preserving his limbs from injury was by carrying him into the field and laying him on the new-mown hay. The patient proved to be the son of a very eminent psychologist, who came over to assist in his treatment, but he at once pronounced the case as hopeless. All forms of sedatives were used, but without any effect, and death resulted in a short time from exhaustion.

Dr. Courtenay stated that the thanks of the meeting were due to Dr. Cope for his very interesting paper. That more cases of a similar nature did not oftener occur in asylum practice always appeared to him to be a matter of wonder, considering how very close the connection was between the motor and intellectual area of the brain.

Dr. Drapes said he had never seen a case of choreic insanity, and that he believed such cases were merely the result of accident, in accordance with the opinion of the latest researches on the brain as to the connection between the motor and intellectual centres.

Dr. Moore described a case of constant choreic movements terminating in death.

Mr. Norman did not believe that the connection of chorea with insanity was accidental. In Dr. Moore's case he thought the symptoms were produced by a tumour of the brain.

Dr. Eustace said he wished to make a few observations on the proposed Private Lunatic Asylum Bill. The Lunacy Bill of the Lord Chancellor for England, passed by the Lords, fully recognizes the *vested* rights of the licensed lunatic asylums, and also provides for the continuance of the present licensed private asylums. Mr. Corbet's Bill does neither. Mr. Corbet's Bill may be properly met by the Government thus, should it meet the view of the Lord Chancellor for Ireland to undertake to bring in a Bill for Ireland: To embody in it such portion of the Bill for England as in his lordship's judgment would be applicable and desirable for Ireland, and otherwise to amend the Irish Lunacy Laws as may seem to him best. If not the Lord Chancellor, any influential member can bring in a Bill for Ireland. One of the intentions of the Bill for England is "to remove the difficulty felt in securing the speedy treatment of mental disease." The requiring the presentation of a petition to a magistrate will add to the difficulty (see "A Legal View of the Lunacy

Bill"). An objectionable portion of the Bill is, that, in place of encouraging voluntary patients and visitors to reside in the licensed asylums, it places an obstacle in their way, and interferes with a just right that even a supposed lunatic or a visitor has to select the place for treatment of a disease, which is in most, if not all cases, only partial, not complete. It is manifest the residence of such voluntary inmates must be a great protection and social advantage to the involuntary inmates. The effort of legislation should be to afford all prudent liberty, and encourage all asylum proprietors to make their establishments comfortable homes and hospitals for the treatment of disease, and not merely prisons for detention. None but medical practitioners of standing and substantial means should be licensed, and such licensed asylums should not be limited to the number of patients at present licensed for (which would effectually prevent improvement of the establishments), but it should, as now, be left to the discretion of the licensing power. One of the most important provisions of any Act is that of judicial inspection, which is so well performed in the case of Chancery lunatic patients. What might be best may be to extend that system, and let the Lunacy Office of the Court of Chancery appoint all the inspectors or special inspectors, subject to the Lord Chancellor, to visit, report upon, and control all matters relating to private lunatic asylums, and the licensing power of the few such asylums should rest with the Lord Chancellor. Considering the increasing number of Chancery lunatics in such asylums this would seem most reasonable and natural. The Lord Chancellor should represent the Government as head of the Lunacy Department in all respects. This would increase the confidence of the public. Perhaps as the pauper lunatic asylums are so closely allied to workhouses the details of such might in a good degree be left to the Boards of Guardians, with an annual inspection of responsible Chancery visitors to report upon their general condition to the Lunacy Office of the Court of Chancery. If Mr. Corbet's Bill was passed the result would be that nearly all the patients in the present private licensed asylums in Ireland would be transferred to the private licensed asylums in England, and their vested rights would profit in the same proportion as the confiscated Irish asylums would lose—a result overlooked by the framers of the Irish Bill.

Dr. Courtenay moved that the thanks of the Association are due to Dr. Eustace for his views on the proposed legislation with regard to the private asylums of Ireland, the result of his long and varied experience.

LUNACY ACTS IN NEW SOUTH WALES.

It is so seldom that lawyers find anything good to say of Lunacy Acts that we think the following, for which we are indebted to Dr. Norton Manning, the Inspector General of the Lunacy Department, N. S. W., may be interesting to our readers. The Act in New South Wales allows of admission at the request of friends, but provides that the signature of the person signing shall be witnessed by a justice or a clergyman licensed to celebrate marriages. The magistrate does not see the patient or act in any way medically, but merely as a witness to the signature.

Extracts from the Law Reports, Chancery Division. Part 12. *December* 1*st*, 1887.

T.P. 287, *et seq.*

In *re* Barlow's will.

"A lady detained in a lunatic asylum in New South Wales was entitled for life to the income (about £30 a year) of one-third of testator's residuary income, and was absolutely entitled to a fund of about £2,000, which had arisen from accumulations. She had for years been maintained by the Colonial Government at a total expense of £803. By the New South Wales Lunacy Act extensive powers of management of property of lunatic patients

were given to the Master in Lunacy of New South Wales. The Master claimed to have the accumulations, which were in England, paid to him."

Appeal heard before Lord Justice Cotton, Lord Justice Bowen, and Lord Justice Fry.

Lord Justice Cotton. Extract from judgment.

"We have been referred to the Lunacy Act of New South Wales, passed in February, 1879, and undoubtedly that Act contains provisions which make it practically impossible that anyone should be in an asylum without sufficient reason."

Lord Justice Bowen, in *re* Barlow's will. Extract from judgment.

"I desire most emphatically to add my voice to what has been said by the Lord Justice as to the provisions of the colonial legislation being above all comment and criticism as regards these insane patients. We have the most ample confidence not only in the legislation, but in the officers of the colony who administer the law, and I myself feel no doubt that the interests of the lunatic would be as well cared for by the Master in Lunacy in the Colony as they would be cared for by the Master in Lunacy here if she was here, and that she is surrounded by all the protection and safeguards that could reasonably be invented for the purpose of taking care of her and of her property."

THE STOMACH-PUMP SUPERSEDED.

Under the above heading, Dr. Yellowlees writes a letter to the "Lancet" advocating the use of a bottle which has evidently much to recommend it in cases requiring forced feeding. It has been used by Dr. Yellowlees for some years at Gartnavel, where we have seen it. It must be remembered, however, that the stomach-pump has been already superseded by various other contrivances, such as the simple tube and funnel, without using the pump; the single or double nasal tube; and, simplest of all, the introduction of liquids by a tea-spoon or funnel into one of the nostrils. We should say that few asylums now resort to the pump itself. Under the "German Retrospect" will be found a mental physician's reasons against using any mode of forced alimentation whatever.

The following is the letter referred to:—

To the Editors of the 'Lancet.'

Sirs,—The recent correspondence as to the use of covered funnels in feeding by the stomach tube leads me to give greater publicity to a far better contrivance, which I devised many years ago, and constantly use here. An ordinary twenty-ounce bottle, perforated near the bottom by a small tap for the admission of air, and a long stomach tube bearing a cork which fits the mouth of the bottle, constitute the whole apparatus. The food being mixed in the bottle, the tube is introduced, the cork placed in the mouth of the bottle, the bottle inverted and raised, and the air-tap opened, when the food passes quickly into the stomach in a continuous stream. Great injecting force can be at once applied if required by *blowing* through the air-tap, to which a small rubber tube is attached for this purpose. For simplicity, cleanliness, efficiency, and perfect inspection this plan leaves nothing to be desired, and solid nourishment can be thus given in many forms, as there is no tap to obstruct its passage, and as the food can be kept in agitation within the bottle during administration. No one who has used this contrivance will wish for any other. It is equally available for emptying the stomach by lowering the bottle and establishing a syphon action by suction. Messrs. Hilliard and Sons, Glasgow, supply the apparatus.

I am, Sirs, yours truly,
D. Yellowlees, M.D.

Royal Asylum, Gartnavel, Glasgow,
May 12th, 1888.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The Forty-seventh ANNUAL MEETING will be held on Monday, August 6th, 1888, in the Hall of the Royal College of Physicians, Edinburgh, under the Presidency of T. S. Clouston, M.D., F.R.C.P.Ed.

JULY EXAMINATIONS FOR THE CERTIFICATE OF EFFICIENCY IN PSYCHOLOGICAL MEDICINE.

Examiners:

DR. HACK TUKE and DR. G. H. SAVAGE.

I.—PASS EXAMINATION, MONDAY, JULY 23, 1888.

Morning, 11 to 1.

Written examination in Psychological Medicine. Questions will be asked on the Definition, Classification, Diagnosis, Prognosis, Pathology, and Treatment of Mental Disorders: also on the main requirements of the Lunacy Law in regard to Medical Certificates and Single Patients.

Afternoon, 2 to 4.

Clinical Examination of Insane Patients. Candidates will be required to fill up Medical Certificates and to write a short commentary on each case.

TUESDAY, JULY 24.

Morning, 11 to 1.

Vivâ Voce EXAMINATION.

II.—HONOURS EXAMINATION (GASKELL PRIZE).

The Examination will be held at Bethlem Royal Hospital on the 23rd and 24th July.

Candidates must have passed the Examination for the Certificate of Efficiency in Psychological Medicine in the United Kingdom, must have attained the age of 23, and must have been qualified medical officers in one or more asylums for at least two years.

Candidates will be examined in—1. Healthy and Morbid Histology of the Brain and Spinal Cord. 2. Clinical Cases with Commentaries. 3. Psychology, including the Senses, Intellect, Emotions, and Volition. 4. Written Examination, including Questions on the Diagnosis, Prognosis, Pathology, and Treatment of Mental Diseases, and their Medico-Legal Relation.

Candidates intending to present themselves for Examination are requested to give (if possible) 14 days' notice to Dr. Rayner, Hanwell, W.

Order of Examination:

JULY 23, 1888.

Morning, 11 to 1.

WRITTEN EXAMINATION (MENTAL DISORDERS).

Afternoon, 2 to 4.

CLINICAL CASES AND COMMENTARIES.

JULY 24.

Morning, 11 to 1.

WRITTEN EXAMINATION (PSYCHOLOGY).

Afternoon, 2 to 4.

MICROSCOPY.

The Examination for the Certificate of Psychological Medicine in Ireland will take place at Dublin, July 12th; in Scotland on the 18th and 19th July, in Edinburgh. For particulars apply to Dr. M. Courtenay, Hon. Sec. for Ireland, and to Dr. Urquhart, Hon. Sec. for Scotland.

THE ELLIOTT CHARITY.

The following short account of a newly-established charity for the benefit of poor and deserving ex-attendants on the insane in English licensed houses may not be without interest.

Mr. Cyrus Alexander Elliott, formerly proprietor of Munster House, Fulham, by his will dated July 10, 1866, gave so much of the residue of his estate as might be devoted to charitable purposes, upon trust to set apart the same for the benefit of and to apply the income thereof on or towards the relief, maintenance, support, or medical treatment of such poor persons, whether male or female, as should have been employed as attendants on the insane in private asylums only, and as should, whilst so employed, have become incapacitated by sickness, accident, old age, or other infirmity, from continuing in such employment.

This charitable gift did not take effect until 1876. Mr. Elliott's estate was at that time the subject of a Chancery suit, and in 1879 it was declared by the Court that the gift was a good charitable bequest. Considerable delay ensued in winding up the estate, but at length a scheme for the administration of the charity has been duly approved, and it is now in active operation.

In preparing the scheme it was felt desirable to secure the co-operation of the Commissioners in Lunacy, as possessing exceptional sources of information as to the character and antecedents of the persons for whose benefit the charity is intended. With this object the Secretary for the time being of the Commissioners has, with their concurrence, been appointed as one of the two *ex-officio* Trustees of the charity, the other being the Treasurer for the time being of Bethlem Hospital. Four gentlemen, among whom may be named Dr. Rayner, of Hanwell Asylum, are associated with the *ex-officio* Trustees.

We may suppose that the benevolent founder of this charity was incited to such a disposition of his worldly goods by distressing cases coming under his own notice as proprietor for many years of a licensed house; and an upright and conscientious attendant on the insane, if reduced to poverty by no fault of his own, must be admitted by every reader of this Journal to be a person deserving of much consideration.

It will be seen that Mr. Elliott had carefully limited the objects of his bounty to attendants in "private asylums." The testator's expression "poor person" has been interpreted by the Chancery Division in settling the scheme of management to mean a person having no income derived from other sources than the charity exceeding £26 a year, and the operation is restricted to English asylums.

We understand that the available annual income at the disposal of the Trustees will be upwards of £100 a year. It remains to be seen whether a sufficient supply of properly qualified candidates for participation in the benefits of the charity will always be forthcoming.

Obituary.

DR. W. B. GOLDSMITH.

There are many in this country who, from their personal knowledge of Dr. Goldsmith, received the intelligence of his death, which took place on the 21st March, with the deepest regret. During his residence in Britain all who formed his acquaintance entertained for him the most sincere regard, confirmed in the experience of some of us by seeing him in the asylum of which he was superintendent in the United States. A long career of active work among the insane was expected; the last idea present to the mind of the visitor being that that life would be cut short in its prime, for the loss of which such universal sorrow has been felt and expressed. We take the first opportunity of uniting with our co-alienists in America in the profound grief excited by his unexpected and lamented death.

He was educated with the view of taking up the special department of

medicine of which he proved to be so able and hard-working a member. He graduated at Amherst College, Mass., and then studied medicine under Dr. Chapin, the Superintendent of the Willard Asylum, where he remained a year. In 1877 he passed the examination of the College of Physicians and Surgeons of New York. He spent, subsequently, two years acquiring knowledge in the hospitals in London and Edinburgh.

In response to our request, Dr. Clouston has jotted down his reminiscence of Dr. Goldsmith when he acted as assistant medical officer during several months at Morningside:—"He threw himself into the work with the intensest enthusiasm. He evidently was most anxious to learn all he could about the treatment of patients in Scotland. His mind was open, and a most candid one. I always enjoyed in going round the wards with him an argument about our system as contrasted with the American plan. I very well remember we happened to have in the department of which he had temporary charge a young lady suffering from the most violent acute mania. She was deliriously excited, very homicidal, and had a sort of unnatural strength for the time. To give her daily walks it always took four or five good attendants, specially accorded her, during the worst part of her attack. Dr. Goldsmith and I discussed, while standing by her and her staff of attendants in the garden one day, most fully, the whole question of Restraint and Seclusion *versus* Freedom in the presence of the terrible symptoms presented by this poor girl. He said that in every asylum in America she would have been either placed in a seclusion room or in some way mechanically restrained, possibly both. I asked him, 'Well, now, you see what we do. What do you think of it?' His reply was: 'Your treatment is the most humane, provided that you have good attendants and plenty of them; and, moreover, are not afraid if any accident does occur, but in that "if" lies the whole question between you and us.'

"Dr. Goldsmith was a man not only likeable, but loveable in his personal disposition. He had a quiet, kindly manner, was full of a certain dignity and self-restraint, and was a gentleman to the backbone.

"He got on well with his colleagues, he governed the staff as if he were no stranger, and he was greatly beloved by his patients. He had the scientific and clinical spirit in a high degree. He never sank the doctor in the manager. He was always present at the post-mortem examinations, and was an extensive reader of general neurological research. During my visit to America, when Dr. Goldsmith met me at the Danvers Asylum, I experienced that feeling one always has towards an old colleague with whom one has lived in daily association."

Dr. Goldsmith studied also in Germany, including Vienna, where he studied under Meynert. On his return he became Assistant Medical Officer at the Bloomingdale Asylum, New York, whose superintendent, Dr. Nichols, quickly recognized his worth, and became warmly attached to him. He writes: "I feel the death of Dr. Goldsmith more than I can tell. He seemed to me almost like a younger brother. His was one of the strongest, most symmetrical, best rounded, and most complete characters I have ever known. How much he had achieved at 34! What promise he gave of future usefulness and fame! I find it difficult to be reconciled to his death." Dr. Goldsmith, on his part, looked up to Dr. Nichols as his teacher and friend, and consulted him in after years when in want of counsel as to his course in life. At the early age of 28 he was appointed Superintendent of the State Hospital for the Insane at Danvers, Mass., where he threw all his energies into that large institution, and was esteemed by all with whom he came in contact. He was a frequent visitor at the house of the poet Whittier in the neighbourhood, and was a great admirer of the man and of his poetry. We have reason to know that Whittier reciprocated the feeling of Dr. Goldsmith. There he remained until the death of Dr. Sawyer, which created a vacancy in the office of Superintendent of the Butler Asylum, Providence, Rhode Island. Dr. Nichols it was

who recommended him to the trustees of this hospital, and he proved a worthy successor of the men who had preceded him. At the time of his appointment he was 34 years of age, and he occupied the post for a little more than two years, namely, from December, 1885, to March, 1888. It is stated that "during this brief period he had performed the difficult duties of his position with signal abilities and success, and had won for himself the entire confidence and the warm esteem of the trustees and friends of the hospital, while the innate kindliness of his spirit and the gentleness of his manners were widely felt among its inmates. He came here with a high reputation, which he has fully sustained and extended during his brief residence in Providence. In the special department of the medical world to which he was devoted, he already held a place in the foremost ranks. His training had been thorough and diversified, his experience large and varied, and his qualifications for the difficult position which he filled were of the highest order. His unexpected death will bring sorrow, not only to those with whom he was more immediately associated in the management of the hospital, but to all who estimate aright the importance of high professional character and acquirements to the entire community."

The cause of death was pneumonia, which lasted for a week. He suffered severe pleuritic pain; the highest temperature was 104°, his pulse frequent and weak, and he became much prostrated. In addition to the medical advice afforded by the city, the services of Drs. Folsom and Shattuck were obtained, and the former sat up with him during the night. He himself remarked during his illness: "One thing is against me, I have a bad heart." Subsequently he said to his sister, "The crisis has come, and I hope to get well, but there is doubt." Several days before he died he said with his characteristic cheerfulness, "It must be all for the best."

One of the Governors of the New York Hospital and Bloomingdale Asylum writes: "The death of Dr. Goldsmith is to me a loss of a warm personal friend. I have been greatly drawn to him during the past two years; a most judicious, earnest friend, full of talent, self-reliant, most honourable, and alive to any advanced professional work." The same hand writes: "The service in the chapel was of the most simple character, directed by Dr. Goldsmith himself. He awaited death with supreme courage, and it was only the day before, that he gave up the hope that he would survive. The grief of everyone, from the trustees to the labouring men on the place, was most sincere."

To him may be applied the lines of his friend Whittier—

> "His daily prayer, far better understood
> In acts than words, was simply doing good,
> So calm, so constant was his rectitude,
> That by his loss alone we know its worth,
> And feel how true a man has walked with us on earth."

Dr. Goldsmith died unmarried, and leaves a widowed mother and a sister to mourn his untimely loss, for whom we venture to express our warm sympathy.

W. DEAN FAIRLESS, M.D.

A man's worth is not to be determined by the prominence of his position or the brilliancy of his success, for the best men are often the least prominent, and to deserve high success is better even than to attain it.

This is the feeling with which all who really knew him will recall Wm. Dean Fairless and the story of his life. Having become M.D. of St. Andrew's and M.R.C.S.England, he began his professional life at Crieff, in Perthshire, where he practised with great acceptance for seven years. He left Crieff on account of his wife's health amid general regret, and began work in his native town, Hexham, Northumberland, where his ancestors were well and honour-

ably known. He soon found that the toil of country practice was beyond his strength, and turned his attention to lunacy, becoming in 1859 assistant to Dr. Howden, of the Royal Lunatic Asylum, Montrose. On the completion of the buildings at Sunnyside, which now bear that name, Dr. Fairless was appointed Medical Superintendent of the Old Asylum in the town of Montrose, and filled that office ably and efficiently for about six years. Nor was he merely an asylum superintendent, for wherever he resided he took an active part in all the agencies for the intellectual and moral elevation of his fellow citizens.

When the Old Asylum at Montrose was closed, Dr. Fairless resided for a time at Conparangus, while looking for more work in connection with the insane, and eventually selected Lanarkshire, where he built and superintended the Kirklands Asylum at Bothwell. The eleven years he spent at Bothwell were probably the best of his life. His personal character and mature experience made him a most kind and skilful asylum physician, while he used his institution as a means of doing good rather than of making money. He was honoured by his professional brethren, and for years was Secretary of the Scottish Midland and Western Medical Association. He was held in very high esteem by the friends of patients, and by all who knew him, and at Bothwell, as well as at Crieff and Conparangus, presentations of valuable gifts were made to him by the public, expressive of the general esteem.

In 1879 he sold Kirklands to the District Board of Lunacy, and, retiring from medical work, resided first in Oxford and latterly in London, where he died on April 4th, 1888, from cardiac and renal disease, in his 66th year. His death is mourned by a widow and six children, and by many old friends.

In his manner he was kind, gentle, and sensitive, in his work patient, painstaking, and anxious, while his whole life was elevated and sustained by the highest moral tone.

His later days were clouded by much domestic affliction and by unfortunate money investments, as well as by much personal suffering, but through them all he was the same gentle, patient, self-forgetting, God-fearing man—to whom to die was gain.—D. Y.

THOMAS HARRINGTON TUKE, M.D., F.R.C.P.

We greatly regret to have to record the death of a member and former officer of the Medico-Psychological Association, Dr. T. Harrington Tuke, who died of pulmonary disease at his residence, the Manor House, Chiswick, June 9th, 1888. He came of a good Irish family, and traced his ancestors to the West of Ireland, where they resided for several generations at Tralee, and subsequently in Dublin, the birth-place of his father, Dr. Edward Francis Tuke. His son was born at Bristol, June 13th, 1828. He was educated privately, and at Kensington School. He studied medicine at St. George's Hospital, passed the College of Surgeons in 1847, and became M.D. St. Andrew's in 1849. He obtained the Fellowship of the College of Physicians in 1868. His connection with the Private Asylum at the Manor House, Chiswick, dated back to the time of his father's death in 1846, when, in conjunction with his mother, a lady remarkably gifted with administrative powers, he took charge of the house. The establishment was conducted on a liberal scale, and the enemies of licensed houses never brought any charge against the mode in which the Manor House was carried on, either in regard to the dietary or the treatment of the patients. Dr. Harrington Tuke was generous indeed, to the point of being lavish, and crippled his own resources thereby. His manner towards the patients under his care was frank and kindly, and he displayed much tact in eluding the inconvenient questions which the insane are so well able to put to the mental physician.

Dr. Tuke attended Dr. Conolly's lectures, delivered at the Hanwell Asylum, and in 1852 married one of his daughters, who survives him. He no doubt derived many advantages from the near relationship into which he was brought with Dr. Conolly, but he was not a blind follower of so-called "Conollyism," and approved of resorting to mechanical restraint when the safety of the patient required it.

He enjoyed a large practice in mental cases, and was a witness in courts of law in not a few important trials. He took a strong view of the irresponsibility of the boy O'Connor, who desired to make himself famous as a reginæcide, and the subsequent career of this youth served to confirm his opinion. He received a letter from the Home Secretary thanking him for his advice in the matter of precaution at the time of the boy's subsequent release.

Although Dr. Tuke was not the author of any work on mental affections, he contributed to this Journal several papers which were of a practical character, and resulted from his own experience. These had reference chiefly to Forced Alimentation, Baths, General Paralysis, and Monomania. If it is true that these papers have had their day, they were at the time valuable contributions to psychological medicine.

Dr. Harrington Tuke was Honorary Secretary to the Association from 1864 to 1872, and was President in 1873.

We offer our sincere condolence to the family on the loss they have sustained in his decease.

Appointments.

Anderson, D. H., M.B., C.M.Ed., appointed Assistant Medical Officer to the Hull Borough Asylum.

Brown, F. L. H., M.B., appointed Assistant Medical Officer to the Bristol Asylum, Stapleton.

Chambers, James, M.A., M.D., M.C., appointed Assistant Medical Officer to the Cumberland and Westmorland Asylum, Carlisle.

Hacon, Walter E., L.R.C.P., M.R.C.S., L.S.A., for seven years Medical Superintendent, Hospital for the Insane, Christchurch, N.B., has retired, and been appointed Honorary Physician to the Christchurch Hospital.

Holmes, T. D. H., M.B., C.M.Ed., appointed Assistant Medical Officer to the East Riding Asylum.

Jones, R., M.D., B.S., appointed Medical Superintendent of the Earlswood Asylum for Idiots.

Macphail, S. Rutherford, M.D.Ed., Assistant Medical Superintendent, Cumberland and Westmorland Asylum, appointed Medical Superintendent of the new Derby Borough Asylum.

Myles, William Zackary, Senior Assistant Medical Officer, Richmond Lunatic Asylum, Dublin, appointed Medical Superintendent of the Kilkenny District Asylum, *vice* Dr. Barry Delaney.

Nicolson, R. H., appointed Assistant Medical Officer to the Warwick County Lunatic Asylum.

Pretsell, W. G., M.B., C.M., appointed Assistant Medical Officer to Govan Poorhouse and Asylum.

Pope, P., M.R.C.S.E., L.R.C.P.Ed., appointed Clinical Assistant to the Borough Asylum, Birmingham.

Simpson, Samuel, M.B., B.Ch.Dub., appointed Second Assistant Medical Officer to the Somerset and Bath Asylum.

Torney, G. P., L.K.Q.C.P.I. and L.R.C.S.I., appointed Assistant Medical Officer to the Lincolnshire County Asylum.

Wreford, J., L.R.C.P., M.R.C.S.Eng., appointed Junior Assistant Medical Officer to the Norfolk County Asylum, Thorpe.

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PART I.—ORIGINAL ARTICLES.

Presidential Address, delivered at the Annual Meeting of the Medico-Psychological Association, held at the College of Physicians, Edinburgh, August 6, 1888. By T. S. Clouston, M.D., F.R.C.P.Ed., Physician-Superintendent Royal Edinburgh Asylum for the Insane, Lecturer on Mental Diseases, Edinburgh University.

Gentlemen,—What is the typical form of insanity? The typical form of any organism is seldom to be found in concrete shape. It is commonly an ideal thing rather than a real, a generalization rather than a fact. Still less commonly do we find a typical case of any disease. It is always instructive, however, to endeavour to construct such a type if we do so on nature's lines. Are we in a position to say which is the typical form of mental disease? Can we select out of all the varieties and sequences of mental symptoms due to brain diseases that which, built up into a clinical whole, would form an ideal case? Can we, by means of combined clinical photographs of a hundred different cases, get one which embodies the essential characters of them all? It is a difficult task. I am not sure but that it is as yet an impossible one. On the threshold we are met by the fact that mental *symptoms* in different cases are not only different, but appear to be diametrically opposite to each other. How can one get a common character out of emotional elevation in one case and emotional depression in another? Out of stupor on the one hand and mania or impulsive insanity on the other? Out of the mental hyperæsthesia of one case and the anæsthesia of another? How can we get a common type out of mild, curable melancholia on the one hand and general paralysis or organic dementia on the other? Mental diseases are most various in symptoms and course, and the tendency has been strongly, the more closely they are

studied, to multiply varieties and name each of them. This is, no doubt, a necessary stage in all scientific study. The question is—Have we arrived at the stage in our special study at which we can be synthetic? Can we combine varieties and species into true classes? It seems certain that if we confine our attention to the purely psychological view of our cases we shall fail to arrive at any typical form. But if we take the whole clinical history and course of a large number of cases, and especially if we look at their terminations, we shall, I think, get within sight of a true type of mental disease. At all events we shall in this way get a feature common to every kind of mental disease whatsoever. What I mean is the tendency of every form of insanity, of every variety of every classification ever made, to end in the condition we call dementia. This has been well described as the "goal of all insanities." It is more than that. It is the goal of all mental life. If a man lives long enough, decay happens to his mental faculties by an inevitable law. Growth, nutrition, development, energizing reproduction, innutrition, lessened energizing, death—is the natural course of brain-life, as it is of all organic life. The insanities in this respect merely follow the rest of living nature. When decay comes before its time, however, it is called degeneration and disease. Yet the process in its essence may not differ essentially from the natural failure of old age, or rather of completed life. A perfect organism dies all together, not in parts. Its organs all had the same original potentiality of living. The death of one organ or tissue before another seems to mean reversion to an earlier type, or a hereditary weakness.

The mere number of years the organic structure we call brain cortex has taken to grow, to develop, to do the energizing that was inherent in it, to decay and die, differs enormously in different cases. The brain cortex of the dog, which in most respects we cannot distinguish from that of a man, has done its growth in six months, has done its development in eighteen, has done its energizing in full intensity in four or five years, and is in a condition of senile decay in ten years. Its whole inherent life is done before man's cortex has undergone half the developmental process, and the difference in time between the periods of growth, development, full force, and decay in different individuals, in the two sexes, in different races is very great. There is an infinite number of inherent hereditary qualities in every brain, some of which are potential merely, and never come out in any shape that we can recognize, and which as yet are not distinguishable by a mere examination of

the structure of the cells or fibres or surrounding molecular tissue. The brain cortex of two generations of men and women can carry insanity as a mere potentiality from a great-grandfather to his great-grandchildren, with no sign of it in the children and grandchildren.

The most marked common clinical quality of all kinds of mental disease is this tendency towards dementia, to permanent mental weakening in volition, in emotion, in reasoning, in memory, in observation, in imagination, in reactiveness to the environment. No doubt, looked at from the sociological point of view, all mental disease is anti-social. An insane community could not cohere, and therefore could not exist long. Even when the social instincts of the individual lunatic are exaggerated by his disease they do not give him more social strength. There are many kinds of psychological development entirely within the sane limit that are strongly anti-social. A body politic in any shape could not be built up of them. The habitual criminal, the ne'er-do-well, the indolent, the habitual drunkard, the markedly eccentric person are all men out of whom a society could not be formed or kept together. Too great a proportion of them in any country would soon reduce it, not to barbarism, but to annihilation. But the lunatic is the most anti-social element in society by far, and lunacy finds its least social element in the dements as a class.

Most of the classes I have mentioned could as individuals "manage to live" by their own efforts in certain circumstances. They can anticipate the future to some extent and provide for it; the dement cannot do so. Place fifty in a rich country and they will neither sow nor reap, and will die off at once. If any single organ in the body were in the state as regards its function in which the mind organ in the brain is as regards its function in dementia, the body would die. A demented person cannot even use for the prolongation of his life and for his happiness the results of his ancestors' providence.

The actual strength of the tendency to dementia in mental disease any of us can ascertain for himself, with a very near approach to accuracy, by tracing out the history of his cases for a few years; and the actual prevalence of this mental state one may in a general way find out by an examination of Table XI. of the Association in a number of Asylum Reports. In addition to cases of pure "secondary dementia" in the column "Form of Mental Disorder in the Patients remaining in Asylum," we must include, if we want to get the sum-total of the incurable mental enfeeblement, most of the cases of chronic

and delusional mania, most of the epileptics, and all the congenital cases. An examination of the Reports of 17 asylums scattered all over Great Britain, and containing 10,000 patients, shows that pure, uncomplicated secondary dementia amounts to about 22 per cent. of the total number of the insane. If we add to this the enfeeblement complicated with long-standing maniacal symptoms we have 28 per cent. more, making 50 per cent. of secondary dementia. Adding the epileptic and the congenital dements, they sum up the grand total of absolutely incurable mental enfeeblement to 66 per cent. A careful analysis of the mental condition and history of my present 800 patients in the Royal Edinburgh Asylum leads to the same result. Two-thirds of all the insane of the kingdom are therefore demented.

Looking at the incidence of dementia in the new cases, I find that out of every 100 insane persons sent to asylums every year about 40 sink into dementia.

An examination I have made into the history of all my secondary dementia brings out the striking fact that almost all the typical examples were in their primary form cases of the insanity of adolescence. By typical cases I mean those without fixed delusions or maniacal excitement and marked in degree. In insanity occurring after full brain development and before the period of decadence—that is, between 25 and 50—when incurable mental enfeeblement results it is not complete and typical, being complicated and overlaid by chronic and delusional maniacal states. I have no typical example in a patient who became insane over 30.

In a tissue the highest infinitely in function, the essential nature of the relationship of which to its function is by all modern thinkers pronounced unthinkable—but yet that relationship being so certain that no one who has studied the matter in the scientific way has any doubt that mind can only be manifested in this world through brain—in such a tissue we can conceive how liable it will be to perturbations of function through its very delicacy and complexity of elements. But why should it be subject to a permanent failure early in life in so many cases? Why should the especial and distinctive disease of the mind-tissue, viz., insanity, always tend towards a lowered mental energizing, stopping at a certain point and going no further?

I propose to devote the chief part of this address to the subject of secondary dementia. We know only too well that in our prognosis of every recent case of insanity it is our one

fear. To the relatives of our patients it stands out as an event compared to which death would be a bearable affliction. Not one of us would hesitate for a moment in answering the question, "Would you rather die or become demented?" It has been generally regarded as the least interesting branch of our study and professional work, and, in my opinion, too little attention has been paid to its study. When it has come on in any case we do not regard that case in the same way as we have done before. We are apt to consider our dements as our padding, our dead weights, our drudges in our asylums—very useful in many cases, but very unmedical. They do not rouse our pity and therapeutic efforts as the melancholics do; they do not stimulate our resources as maniacal cases do; they do not hate us like some of our delusional cases, nor love us like some of our convalescents. We feel that their mental condition tends to lower our own, and to make our less worthy attendants regard all the insane as inferior animals, fit only to be ordered to scrub the floors and clean the chamber vessels. They are the great lowering agency in asylums, against which we have to put our own minds to struggle, and to inspirit our staffs also to resist. To the citizen and the ratepayer they are a terrible burden. He does not commonly grudge the money spent on cure and for the curable, but to keep a mass of incurable, mindless, useless humanity on better food and better quarters than many of the deserving, the working, and the useful enjoy —is there not something of a hardship to average humanity in this?

Is it not *the Cardinal Problem of Psychiatry* from a clinical point of view—How can we avert dementia? Before dementia has come on in any case we are physicians in the fullest sense. We are treating disease in an organ whose functions are damaged, but not lost, an organ responsive to conditions capable of affecting it from without, reactive to stimuli more or less, with the former presentations from the senses still in its tissue and capable of representation, not faded out; and with its energizing exaggerated, lowered, or perverted, but not dead; and as to its trophic function, with the power of nutritive and functional recuperation still there, not gone. When dementia has come on we are in a totally different position. We have to deal with an organ that in its highest function has little power and no potentiality. Its essential protoplasm has changed in all respects. The sources of feeling, thinking, and volition in the brain are no longer there to any extent. We cannot restore, we cannot heal, we cannot watch or plan hopefully. We are dealing

with a lower kind of brain function which, no doubt, we have to study, regulate, and control, but can never uplift. Psychologically we are in the region occupied by the students of the dog and horse brains—psychologists with interesting problems before us, but not mental physicians in the fullest sense. Where in ordinary disease recovery is out of the question, where there is no pain to alleviate, no cough to relieve, no wound to dress, no craving for help to gratify, we scarcely think of the physician at all. I am not going to depreciate either the philanthropic nature of the services we render to the demented, or the skill and study needed to adapt conditions of life to this special mental state, so that further deterioration may not take place, and that the greatest amount of happiness may be attained of which those persons are capable. The mere effort to contend successfully against the lowering tendency of association with dements on the part of ourselves and our staffs should entitle us all to great credit. A good nurse will take an interest in her work, will suffer much uncomplainingly, and will be in a bright state of mind, so long as she is in charge of curable cases, however troublesome. There is something to observe, there is something new to think about every day, there is the element of expectancy and hope. But put the same nurse in association exclusively with demented patients, and in six months you will see a change for the worse in her mental attitude. She will be more of a machine to keep order and tidiness, and to keep work going. Her powers of observation will have lessened by disuse. She will have ceased to individualize her patients, just because their individuality is small. She will not be seen sitting trying to play games with them, just because it is an uninteresting task to play a game with a person who has no interest in it, and who will forget to-morrow what you teach him to-day.

I would define mental disease as "A tendency to dementia."

But *what is dementia?* That question cannot be answered off-hand. We would need to look at dementia psychologically, pathologically, hereditarily, clinically, and evolutionally to get at anything like a right answer.

It consists, *looked at psychologically,* of such an alteration that mental function in every form is lessened far below a sane standard, this not being accompanied by acute symptoms. The volition, the originating qualities, the judgment, the emotions, the mental reaction to outward stimuli, the power of attention, the memory, mental inhibition, correct association of ideas are all impaired, though not equally in all cases. I am going to

confine my attention chiefly to one kind of dementia, that, namely, which is now commonly called "secondary" or "sequential," because it is the typical and uncomplicated form.

When tissue is destroyed or disappears function ceases. And so we find that all destructive cortical lesions and atrophies are inevitably followed by loss of mind. Apoplexies, softenings, tumours, shrinkages of the cortex, and the atrophy and cell deterioration in the third stage of general paralysis are all accompanied by dementia. This sequence of events has always been held to be natural. The mindlessness of a microcephalic idiot, too, has never excited wonder. The dementia or dotage of old age has been accepted as a law of nature, though only lately has its physical concomitants of cortical shrinkage and cellular degeneration been co-related with the mental deterioration.

The occurrence of dementia in the above forms does not constitute the cardinal problem of psychiatry to which I have alluded, though they are all allied issues. It is the cases where we have had normal brain and normal mind up to the period of adolescence or after, and where, without any gross lesion, and before the senile period, we see a loss of mental function taking place that is absolutely incurable, without necessary or great loss of motion, or sensibility, or nutrition, or serious impairment of bodily function, or tendency towards death. It is in those cases that we have a kind of disease which I maintain is absolutely unique in nature, with no analogy in any other morbid state, and with, as yet, no sufficient pathological explanation. The disordered mentalizations that we call melancholia, or mania, or stupor, or delusional insanity, which commonly precede dementia, are in many cases the mere preliminary symptoms and early stages of dementia. In every attack of mania we treat its symptoms as potential dementia; every melancholic attack is a threatened dementia. How to arrest this terrible disease in its incipient stages is our practical work in life. That so many cases are arrested is our hope and encouragement. That there are some cases where all the symptoms of dementia have appeared after the acute stage has passed, and which recover in the long run, is certain, and is one of the greatest incentives to therapeutic efforts we have. We hope that some day we may be able to cure real dementia in its early stages. I was taught a great lesson by the case of a young woman, aged 17, whose mother had been a patient of mine suffering from curable melancholia, who had passed through a sharp attack of acute mania of six months' duration, which ran

into the usual characters of dementia, with dirty habits and mental lowering and degradation. I thought her so good a case of the disease that I demonstrated in her the characters of early secondary dementia to my class, giving an absolutely bad prognosis, and yet she in the long run made a good recovery, and has for seven years since earned her own livelihood, and is well to-day. Why did her cortical tissue regain its normal power of energizing, and the thousands of others exactly like her to all appearance do not? Though her case presented the symptoms of typical secondary dementia it was not that disease, but secondary stupor, the cousin and frequent precursor of that disease, but differing from it in the all-important matter of curability. The question is—Does every case of secondary dementia pass through the stage of such curative stupor between the primary attack and the incurable stage? I believe some cases do, but most do not.

Does secondary dementia, *looked at pathologically*, result from a degenerated structure of the cortical cells of the mental tissue, analogous to the degenerated cells of senile dementia? Or is it primarily and essentially a functional lowering? Is the undoubted cell degeneration and atrophy found in many cases of advanced secondary dementia a result of long-continued lowered function? Is it vascular in its origin? Is it the nutritional and reparative power of the cortex, or its dynamical mind-evolving power that has failed? How has the intensely sensitive unstable cortical cell become more stable in the sense the neuroglia is stable, but less sensitive and active in its discharging function? As yet we have no pathological anatomy of secondary dementia, though some sections of the cortical tissue of a dement lately shown me by Dr. Bevan Lewis seem, I am glad to say, to presage important additions to our knowledge of the pathology of the disease, at all events in its more advanced stage. But even were such a pathological anatomy of secondary dementia demonstrated it would not help us in understanding its pathogenesis. The pathology of the secondary dementia cannot be expected to be dissociated from that of the primary mania. They are parts and sequences of one process. We need to ask—Whence arose the change in the mode of energizing of the cortex from the normal to the abnormal? And why did the tissue not right itself again in its function as it does after the delirium of drink and of fevers? We have, after all, to fall back on the original qualities of the cortex protoplasm as derived from ancestry, just as we have to fall back on this to explain why the dog's cortex develops in

a year and dies in ten. All brains may be upset in their mental working by certain poisons. Few brains can be thrown into secondary dementia. For its production it needs an original tendency thereto. The meaning of this tendency is that the cortical protoplasm so affected has a specially short life in full vigour possible for it. Just as the sum of the vitality of the Hottentot enables him to live only for forty or fifty years, instead of the seventy or eighty of the European, so the man with a heredity towards dementia can only exist in full mental life for a few years while his organic life may go on for thrice as long. We know that certain persons have such a weak trophic condition of their lungs that they inevitably fall victims to catarrhs and tubercle bacilli during adolescence. So with the brain of the man who has a hereditary tendency to dementia. He runs the risk of dying mentally before his time.

We have evidence that the special sense organs in dementia are intact, and that they transmit correctly the impressions on them to the brain. We have equally good evidence that those impressions are not strongly, if in some cases at all, impressed on the cortex, that there is little sensation and less perception, and that they cannot be properly represented or remembered. It seems certain that in the development of the mental functions of the brain the stimuli of the special sense impressions play a chief part, and to keep it continuously energizing such impressions from without are needed all through life. If the apparatus for continual brain stimulation becomes imperfect the mental function gets dull and slow. Now in dementia the normal intimate associations between the special sense impressions and mentalization are disturbed. The dement sees an object, but a mental image is not clearly formed. And such as it is, it does not rouse associations of ideas through comparison with former sense images. I ask a dement "Do you see that bird?" He takes no notice. I shout the same question and he looks vacantly, and says "Yes," but no bird ideas are roused, no reminiscences of similar birds formerly seen are stirred up, no associations with singing, with sunshine, with summer are raised up in his mind. The whole cortex is in a state of lowered sensitiveness and reactiveness. The higher brain reflexes are not excited by the appropriate stimuli, and the ordinary stimuli need to be much more intense to have any effect at all. I saw a young demented mother once come into the visiting room and see her young child in the arms of another woman. She did not show pleasure, or affection, or jealousy, but simply went up and took some cakes that this woman had brought her, and sat down to

eat them without taking any notice of her child whatever. Yet I am sure we could not have demonstrated any histological cause in her cortex for this amazing paralysis of the strongest affection in nature. The bulk of her convolutions would have been the same as when sane, the colour the same, the amount of blood circulating in them nearly the same, and the microscopic appearances the same. The cells would be as finely punctated, the nuclei as before, the processes as numerous and normal looking, and the matrix of the neurine looking normal. I am quite willing to admit that we may yet invent processes by which differences may be demonstrated between the brain cortex of the early dement and the sane man. What we have clearly to realize is that it is in the mental cortex alone that we must look for such changes. It is this last and highest product of nature that is affected.

In certain cases of secondary dementia I have often been amazed at the responses to strong and unusual stimuli applied for a short time. By shouting and stirring him thoroughly I lately roused an apparently torpid case of deep secondary dementia into talk and active motor action. When I lately had a homicide happen during the absence of the attendant I succeeded in getting a perfectly coherent and reasonable account of the circumstances out of a dement who wets his clothes and tries to drink his urine. The tragedy had roused no emotion, but the occurrences as they were seen had written themselves in his brain cortex in a way. They needed developing by strong stimuli. It took me a long time to get at the facts, but I should not have previously believed the man capable of remembering and relating them in any correct shape. I must say, however, this man was the only dement out of four present who could be roused to give an account of the facts. On the other hand, he was the only one, so enfeebled in one way, as habitually to wet his clothes.

I cannot look on dementia as merely the result of the damage to brain tissue caused by the acute anterior processes of mania or melancholia. At one time I was more inclined to take this view than I am now. I thought that those preliminary storms implied "abnormal nutrition as well as abnormal energizing. This abnormal nutrition tends injuriously to affect the minute and delicate neurine structure, the capillaries, the lymphatics, and the packing tissue of the grey matter of the convolutions. When the storm of morbid action at last passes off or exhausts itself the cells in some cases have become so damaged that they are no longer fit to become the vehicles of normal mentalization,

their nutritive, their storage of energy, their receptive and their productive power being impaired. The mental result of this is enfeeblement or dementia."* So I wrote when I was treating the subject systematically to my students. But I added, "There are many cases where the previous excitement was so slight or so short that we must conclude that the essential nature of the mental disease was a tendency to dementia from the beginning." Now the latter idea of "tendency to dementia from the beginning" has been strengthening with me, while the former of "damage to cells" through transitory over-action has been lately lessening in my mind. An examination of my cases does not show that the tendency to dementia has any direct ratio to the intensity of the preliminary mania or melancholia or stupor; nor has it, I find, any direct relation to the duration of such primary states. Even when great intensity and long duration are combined dementia does not necessarily follow. Then I have had many cases where there was no preliminary attack of mania or any other acute form of insanity, nor any preliminary poisoning of the brain through drink, nor any evil exhausting habit, nor any gross brain disease. The patients simply became less acute in emotion and judgment, less powerful in volition, less able to do their work or take care of themselves, and less social and more "silly," these symptoms gradually going on to marked dementia. Such cases have made a great impression on me, and have influenced powerfully my views of the real significance and causes of dementia. I have now a girl of 19, whose maternal cousin was insane, who was a well-nourished, intelligent, cheerful girl, and who a year and a half ago, after hard work in nursing and the shock of her patient's death, as well as perhaps a love disappointment, began to "feel as if something was coming over her," as if she were "losing her reason." Then she showed less spontaneity, less cheerfulness, and spoke less frequently. Next she lost all interest in anything; would not get out of bed except by force, lost all sense of shame and modesty, would not occupy herself, and had to be sent to the asylum where she is now gradually becoming demented. She never was melancholy nor maniacal; there was no cortical storm at all.

Such is a case of a true "primary dementia." The cases of so-called "primary dementia" of the authors are mostly cases of stupor, and the term should not be used any longer to

* "Clinical Lectures on Mental Diseases," by author 2nd edition, page 272.

distinguish them. We must reserve the term dementia for incurable conditions of mental enfeeblement. Different forms of it may be distinguished as varieties—the congenital, the secondary, the senile, the alcoholic, the epileptic, the organic. I do not like the Continental term, "dementia paralytica," to indicate general paralysis. That as yet most definite generalization in psychiatry let us keep distinct from every other form of insanity or kind of brain disease.

If we study different cases of senile dementia, an undoubted enfeeblement from the first, we shall see some of them beginning with morbid suspicions, some with depression, some with exaltation and restlessness. But in all these cases we do not hesitate for a moment in putting the essential enfeeblement as the primary and chief mental symptom. I fear we must take the same view of many of our secondary dements, at all events, when we view them in the light of their clinical history and termination. We get a case of acute mania at 20. It is from the beginning subject to the best known treatment and conditions. After many improvements and relapses it steadily goes on towards dementia, in which it ends after a year or two, growing fat and becoming stationary in mental condition for twenty years. This stationariness is a characteristic of the disease and one of its most remarkable characters. There is no marked or constant secondary progressive degeneration of other nerve tissues.

I cannot for a moment believe in any mere vascular theory of dementia. That less blood flows through the brain cortex of a dement than through that of a sane, healthy man, that the vascular tone of its capillaries is lower, and that less nourishment is taken from the blood that flows through it by the former than the latter is assumed. But I see no reason whatever to believe that this is the cause of the dementia. I hold that the blood-vessels are the servants of the brain-cells and not their masters, and that the brain anæmias and even that the brain hyperæmias are almost always secondary and resultant conditions. But in mental disease the vascular conditions are nearly always secondary. I am scarcely even prepared to go to the length of admitting that the capillaries and arterioles after being too widely opened through the calls of the over-energizing cells may remain too patent, losing their tone, and thereby continue the over-energizing of the tissues they supply.

The genesis of dementia hereditarily—To trace the origin of any simple disease is difficult, but in the case of mental disease our studies of brain physiology, heredity, and the

effects of his surroundings on man will have proceeded far further than at present before its genesis is ascertained. We all know how far Morel went this way. Any of us who, treading in his footsteps, have attempted to bring our experience to bear on the same problem knows how vastly difficult and complicated the question is. The side issues are innumerable. It is seldom we can get correct and full family histories at all, and as for individual psychological histories they are still less available. It is one of the characteristics of the class of neurotics that many of them cannot rightly judge or even describe their ancestors' or their own or their children's nervous and mental condition rightly. The good points in family history appear to them evil, and the evil good. They are incapable of being witnesses in their own case. Then in tracing family histories the most provoking barrenness or deaths of all the children from ordinary children's diseases occur just when we have come to a couple, both of whom are of such a typical neurotic breed that their children would have been likely to throw great light on our problem. And apparent contradictions to all hereditary laws are constantly met with. A man whose mother was insane marries a woman whose father died of consumption, and they produce a fine, healthy-looking race! Sporadic cases of marked neurosis occur too in the healthiest families.

But from cases where I have got something like reliable family histories for several generations, and piecing the gaps in one family by the facts from others, I think the following may be taken as almost a typical gradation of brain conditions in successive generations leading up to typical secondary dementia or mental extinction in the end.

Beginning with brain health, implying fairly sound mind, normal sensibility and inhibition, good morals, stable motor functions, and a good trophic and organic state. The initial departure from this when a man and woman marry whose nervous developments on the whole are more marked than their trophic, and they have children, is commonly the following:—

1. Extra mental activity, irritability, sleeplessness, and want of fat.

2. We next come to hypersensitiveness, pronounced manners, strong artistic and poetic feelings, reproductive *nisus* strong and uncontrolled in youth, acute emotional religiousness, thinness of habit, and premature senility preceded by hypochondriasis and mental inactivity.

3. The third stage is eccentricity, fitful brilliance, incapacity

to see that two and two necessarily make four, instability, hysteria, neuralgia, and asceticism in the women, drunkenness in the men, with few children, and early dotage in both sexes. The so-called neuropathic diathesis or *neurosis insana* has begun, and more than this, for sporadic cases of idiocy and epilepsy appear in this generation. This is the stage of "moral insanity" too.

4. The fourth step in the descent takes us to the first commonly recognized insanity, melancholia, with mental breakdown at the climacteric. I presume this is a true reversion to a law of nature—very prevalent—that when reproductive power ceases death occurs.

5. The fifth step is *folie circulaire* and maniacal attacks. The normal stability of brain-working has so disappeared that the periodicities of nervous and mental action have become exaggerated into a marked disease, the chief characteristic of which is that the individual leads two or three lives, is almost two or three distinct personalities according to the phase of nervous action he is in. The curable insanities of full development occur here, viz., puerperal, lactational, and such like insanities. Secondary dementia does not readily supervene after these—in only 25 per cent.—and when it does occur it is incomplete and complicated. When the insanities of this stage become incurable, they tend to become chronic delusional states rather than pure dementia.

6. The last phase is that of being subject to severe developmental nervous diseases of all sorts, epilepsy, chorea, bad hysteria, and above all adolescent insanity, ending after a few periodic recoveries in secondary dementia, nature's typical mode of bringing a mentally bad stock to an end. All the great functions and organs are liable to characteristic diseases in adolescence, but when it is the mental tissue whose function succumbs at that time of life, it can only have one meaning. The stock has exhausted its inherent hereditarily energizing vigour in that which distinguishes man from all else in creation—high mentalization.

It does not take as many actual generations in all cases to step down through these gradations of nervous and mental instability, degeneration, and death. In the same family we often find one member simply hypochondriacal, another an eccentric genius, another a dipsomaniac, and a third demented. Not only so, but I have repeatedly met with individual instances of adolescent insanity ending in dementia in families in whom for four or five generations only "nervousness" or strong

emotionalism existed with no insanity at all. The marriage of two persons of this temperament had resulted in a stock unfit mentally to live.

Looking at the brain physiologically, can we make out in what order its functions are affected? I think the following is the usual order of invasion: First, the purely dynamic function and reactive quality of the cortical cells become excessive in proportion to their power of trophic recuperation. The effects of this are seen in excessive automatic mental activity, sleeplessness, too keen sensibility to inward feelings and outward surroundings, and a too early wearing out of the machine. Then there seems to come a permanent change in the nutrition of the cells, implying diminution of inhibition over appetites, passions, and an explosive unstable action, represented by hysteria, chorea, and epilepsy. I do not agree with Dr. Savage that the inhibitory or moral faculties being the last evolved are the first to weaken. I think that emotional hyperæsthesia precedes insane immorality in mental dissolution. In fact, as sensation is the groundwork of mind, abnormal sensitiveness is the earliest "insanity." At this stage of degeneration nature seems to have a difficulty in bringing the nutrition as well as the innervation of the organism to perfection. The developmental stage tends to be imperfect, hence the consumption, rickets, chlorosis, and stunted reproductive power, beardlessness, insufficient mammæ, thinness of body, poor circulation in the extremities, etc. Then comes the stage of reversal of the primary instinct of the love of life. This is a perverted energizing altogether as well as a lowered condition. Pain is substituted for pleasure as the result of the performance of natural function. Melancholia or technical insanity has appeared. The man loses his social instincts, and wishes to die instead of longing to live, but the cortex has still the power of recuperation, nutritionally and dynamically, except in the cases where it assumes an exaggerated periodicity. The last stage is one where, during the maniacal attack, all the former impressions on the brain cortex are dissociated, the energizing being violent and explosive, as represented by the delusions and motor excitement of mania. When this condition ends in a cortical paralysis of a permanent kind, the sensitiveness to impressions from without having almost disappeared, the rate of energizing being immensely lowered, we then have secondary dementia.

The genesis of dementia clinically.—In the insanity characterized by mental depression we do not fear dementia as much

as where there are conditions of exaltation. The quality of this mental enfeeblement after melancholia is not so deep as that which occurs after mania. It remains, too, almost always coloured by depression. Clinically, as well as evolutionally and hereditarily, melancholia is the mental disease furthest from dementia.

The clinical conditions characterized chiefly by delusion and impaired inhibition lead very surely to dementia, but usually very slowly, and the enfeeblement is mixed up with delusion and impulsiveness while the patient lives. It is never an absolutely complete and typical dementia. No doubt many complete dements are impulsive; energy seems to be liberated in the motor centres in a spasmodic and explosive way.

The persistently periodic and alternating conditions, the typical cases of *folie circulaire,* are many of them the most incurable forms of mental disease; yet the brain in such cases, while presenting the maximum of instability, presents the minimum tendency of all chronic insanities to dementia. I have put on record a case * who had over 220 attacks of mania, most of them reaching the delirious stage, extending over 40 years of her life, yet who was not demented in a typical way when she died at 70. Her speech was coherent, her volition not gone, her memory fair, and she could sew and otherwise employ herself. The most instructive point of her case was that she not only had 220 attacks of mania, but she had succeeding these 220 attacks of a mental condition, which no one could at the time have distinguished from dementia. I contend that this state should always be called stupor, so as to reserve the term dementia for incurable conditions of enfeeblement. A study of that, with many other cases, absolutely convinced me that mere maniacal excitement is not sufficient to cause the permanent cortical damage of typical dementia. This study has also convinced me that early dementia is probably also functional, and not accompanied by organic neurine change, and is most closely allied to secondary stupor. For purposes of treatment we should consider all secondary conditions in an early stage as curable.

When we come to the conditions of mental exaltation with excitement, we get to the primary insanities that most constantly precede typical secondary dementia. We are all too familiar with the cases beginning with a little preliminary depression soon passing into maniacal exaltation, this going on

* "Clinical Lectures on Mental Diseases," second edition, p. 221.

for a few months, and then gradully abating, but being succeeded by diminished intelligence, blunted feelings, lessened volition, no origination of new ideas, dirty habits, lowered curiosity and power of attention, little memory, an expressionless countenance, a slow muscularity, a flabby fatness, and a childish mode of writing. These symptoms of enfeeblement sometimes begin in a pronounced way, being mixed with stupor; but more commonly become gradually aggravated in the course of the first two or three years after the maniacal excitement has passed off. Nearly all dements retain some tendency to slight attacks of maniacal excitement, this in a large number of them being irregularly periodic. In fact, a true study and picture of dementia must include such attacks, and a true explanation of the disease must account for this tendency. There is mental death, but there is also a perverted mental life and activity at times. The mental cortex is utterly lowered in its energizing, but it is also subject to explosive outbursts, and often during these there is greater appearance of sanity, and a better mental expression of face and eye. In fact, a sound cortex, an undeveloped cortex as in a congenital imbecile, and a permanently enfeebled cortex can all be subject to those temporary disturbances in action that we call attacks of mania or of melancholia. Those attacks of maniacal excitement constitute another link in the pathological connection between the primary explosive energizing and the secondary lowering of function.

It is a very surprising fact, when we come to study the different varieties of insanity in Skae's classification in their relationship to dementia, how they differ. The insanities connected with reproduction, and occurring after full brain development and before the period of decadence, however intense their symptoms may be, are not at all apt to end in dementia. Puerperal, lactational, uterine insanities, and that of pregnancy are very common, but very curable. They utterly upset the mental working, but the brain cortex soon recovers its normal power of energizing.

It is when we get to the developmental insanities that we get closest to typical secondary dementia. It is some of the adolescents of from 18 to 25 who present us with pictures of the necessary association of a maniacal commencement of an attack and a demented ending.

Does the habit of masturbation cause dementia?—No doubt in certain of the adolescent cases, and also in some cases in the prime of life, constant masturbation tends strongly towards

brain exhaustion and stupor, and these conditions may end in dementia; but dementia may happen without any masturbation, and excessive masturbation may go on for a long time, even accompanied by mania or intense melancholia, without leading to dementia. The two cannot be put as cause and effect.

Out of what primary form of insanity does the most typical and the most frequent secondary dementia arise?—I have carefully gone over the clinical history of all my cases of typical secondary dementia, and I find that by far the majority, in fact almost all of them began as adolescent insanity. They were developmental in their origin. This shows a true kinship between secondary dementia and idiocy and congenital imbecility.

During adolescence, as we know, nature is building the organism up to reproductive perfection, its highest and last stage. It is just at the point that this should be reached that the breakdown of adolescent insanity occurs. The organism through hereditary weakness was not fit to reproduce its kind in perfection, and dies at its highest evolutional point—that is, its mind tissue—just when it should have attained perfection.

The extremely interesting and the supremely important question is suggested by the fact—Does the development of the mind tissue during adolescence by our modern educational processes and its excessive use in after-life in successive generations tend towards this primary adolescent mental breakdown with its secondary dementia? I have no sort of hesitation in saying that it does so when the educational methods are unphysiological and unsuited to the innate capacities of the brains to which they are applied. Especially in the case of the woman is the trophic and reproductive capacity diminished if the mental cortex is called on continually for undue effort during adolescence while the general bodily development is neglected. But this is far too large a question to be discussed here.

The fact is that physiologists generally have not taken sufficient account of the relative importance of the functions of different tissues and organs. The molecular constitution of the mind tissue must necessarily be so infinitely more complex than that of muscle or bone that the integration and development of the former must put an infinitely greater strain on the organism than that of the latter tissues.

There must, however, be many more causes for secondary dementia than over-education or wrong educative methods, for it abounds in the uneducated classes. No doubt every un-

favourable condition of life that tends to weaken the vital energy of a race in operation over several generations, and its consequences thus accentuated and become hereditary, must sooner or later tell on the development of its young, and if the developmental process is interfered with at all the highest product that has to be developed and the last to be evolved, viz., the mind tissue, must soonest suffer.

If the environments and conditions of life were good and the same in any race from generation to generation we should have a complete adaptation of the organism to those environments, and we should have no developmental diseases. *The continual process of too sudden adaptation to new environments and new conditions that is going on in our modern life* constitutes, in my opinion, one of the great dangers of mental development. Nature's hereditary laws provide for development on old lines, with slow changes. Our modern life demands new powers and new inhibitions for each generation, and to provide for these is a great strain. No wonder many individual organisms break down from this cause.

The opposite cause of want of proper brain stimulus may also lead to dementia. If we have a race with good brain power settled in a country where, from generation to generation, there is no proper mental stimulus at all, the brain loses power just as the sight of fish in subterranean lakes diminishes and the eyes of ponies in coal mines lose function. The Dorset labourer and the native of Iceland develop a tendency to dementia from want of stimulus.

Why should the secondary dementia of adolescence be regarded as the most typical of all the dementias?—It is the most typical because its symptoms are the most complete and the most essentially mental. The symptoms of secondary dementia seem to be more essentially connected with the lack of the higher mental stimulus, which acts on every function and organ of the body, keeping them all to the normal tone of action. In some cases a dement of 30 years' duration is a fine man physically. In idiocy and congenital imbecility, on the contrary, all the typical cases are accompanied by trophic and organic and motor deficiencies, as well as mental. We have stunted forms, badly-shaped heads, uglinesses, impaired speech, a bad carriage and walk, and impaired muscular co-ordination. The whole cortex has suffered more or less of arrestment of growth and function. In the dementia of old age we have the speech affected, the gait, and the general muscularity, showing that all the cortex is suffering degeneration. In the

dementias of general paralysis and of epilepsy, of gross organic brain disease, and of long-continued alcoholic soaking we have motor symptoms as well as the mental symptoms. In this respect they differ from typical secondary dementia; they all manifestly affect cortical cells other than the mental from the beginning. Whatever the exact morbid process is, be it pure dynamical failure or subtile structural change, be it a premature death or a reversion to a lower type, it is in this disease confined primarily to the mind tissue alone, and must, therefore, be regarded as the typical dementia; and it is also the most frequent.

Looking broadly to the growth, development, and function stages of all tissues and organs, and more especially to the especial position in organized nature of the mental portion of the brain cortex of man as being by far the highest, we may say that idiocy in many of its forms, congenital imbecility and the secondary dementia of pubescence and adolescence, all represent failures of nature in growth and development in its highest product. They are either arrestments or reversions of type.

We know that while the lower animals are subject in some few cases to attacks resembling mania and melancholia, they are not subject to any state which resembles secondary dementia before they arrive at senility. The disease is, therefore, unique. It stands out among the pathological entities as man's mental cortex does among the physiological products of nature.

I answer the question I put at the beginning of this address, "What is the typical form of insanity?" by saying that the insanity of adolescence is the typical form, because it most frequently ends in typical secondary dementia, without any other function being affected but mentalization, and because in its course we have all the forms of psychoses represented, viz., depression at first, then elevation, then periodicity, commonly some stupor, always delusion and lack of inhibition; and, lastly, incurable enfeeblement and mental death. Adolescent insanity best fulfils one effect of all mental disease, viz., to arrest the further propagation of a stock mentally unfit to maintain itself in the struggle for existence. If all insanity assumed this form it would act as a stamping-out process, and mankind would become much sounder in mind in a few generations.

The existence of secondary dementia is one of the standing difficulties in the way of every classification of insanity,

except Esquirol's, for almost every variety under every classification tends to end in this. The dementias of congenital defect, of adolescent mania, of climacteric insanity, and of senile brain degeneration are all apt to have more or less definite characters by which they may be distinguished from each other in most cases. The clinical symptoms, the bodily accompaniments, and the psychological defects of each of these admit of a classification of the dementias. But the great symptom of pure mental enfeeblement and defect overshadows all the other characters, and gives all the cases so common a type that no word but dementia serves to characterize them. What they have in common mentally exceeds in importance the things in which they differ.

But what Dr. Maudsley says is largely true. "With regard to morbid psychology we shall make no progress while we stay in generalities. What we must do some time is to endeavour in each case to get an accurate knowledge of the parental characters and the parental circumstances, as well as of the exact nature and course of the parental insanity; and to trace out patiently and methodically the evolution of events from generation to generation, to discover and describe the exact life-history of the particular degeneration, a most difficult study, no doubt, but one which might be undertaken in the sure conviction that a single case of the kind, thoroughly well observed and described, would be of more value than ten thousand general observations going no farther than to establish the existence of hereditary influences."* I quite agree with Dr. Maudsley, too, that the morbid psychology of this "humble origin" is absolutely necessary before the man of genius amongst us can arrive at lofty generalizations. And there is no man among us who cannot collect a pile or two of stones for the future edifice. All we need is interest in the matter, the energy to inquire and observe in regard to our individual cases and the small effort of putting our results on record with a sense that this is a duty laid on each of us. Let us, therefore, endeavour more accurately to trace out the steps of the long road that leads from perfect brain power in ancestry to secondary dementia, the typical insanity, in the fifth or sixth generation.

I have not left myself time to enter on the all-important question, "Can dementia be averted? And how?" In

* "Journal of Mental Science," July, 1888.

some cases I believe it can, by prophylaxis through right modes of life in childhood, by physiological modes of education, by the selection of employment suitable to the capacities of the organism. In others I think it can be averted, even when its prelude has begun in the shape of an attack of mania, by right treatment and management, the principles being adopted of rapidly fattening the patient, by life out of doors, regular exercise, the use of tonics, and sexual depressants. In others I think it can be averted by stimulating treatment, moral and medicinal, during the stage of secondary stupor after the primary excitement has passed off. In other cases I believe no prophylactic measures, no sort of treatment of its primary attack of mania would be of any avail. The ancestry had transgressed the laws of nature in their modes of life or in their sexual unions, and the progeny must pay the penalty of mental death to stop a bad mental stock.

To sum up for the sake of discussion:

1. Normal brain cortex differs enormously in different individuals in its inherent qualities and potentialities, these differences being in the most important points necessarily "functional."

2. The strongest common clinical and psychological tendency of every form of mental disease is the tendency to end in dementia.

3. Dementia being a virtual death of the higher mental powers, all insanities, therefore, mean mind death and social death.

4. Dements constitute two-thirds of our insane population.

5. Forty out of every hundred of all new cases of insanity soon pass into secondary dementia pure and simple, or mixed up with maniacal or delusional conditions.

6. The functional change that takes place in the brain cortex in secondary dementia is primarily and chiefly confined to the mind tissue, and is, in fact, a unique disease in nature with no pathological analogies whatever.

7. The problem of what secondary dementia means and how it can be averted is the cardinal problem of psychiatry.

8. Mental disease may be defined as "A tendency to dementia."

9. The constant association with dements alone tends to lower the mental tone of the staffs of asylums by the well-known law of the action of mind on mind.

10. Secondary dementia has as yet no sufficient pathological explanation.

11. It may be looked on as a reversion of type, as a failure of nature's power to complete her most organized and highest product, as a premature functional death of the mind tissue, or as a most beneficial result of the laws that bring a bad stock to an end.

12. Real secondary dementia may be so closely imitated by secondary stupor that only time and the effects of treatment can distinguish them. We may look on the primary maniacal attack as threatened dementia, and the secondary stupor as being a further stage towards it.

13. We have no reason to think that a brain which has a perfectly sound heredity can by any series of bad conditions known to us be made to exhibit typical secondary dementia.

14. The impressions through the senses from the outer world do not stimulate normally the cortex of a dement, though if the stimulant is very strong a certain response is obtained, but such a brain is incapable of providing such a stimulus by its own inherent working.

15. Dementia cannot be looked on as caused by the damage done to the mind tissue through the primary acute disturbance, for it often occurs without an acute primary stage, and its occurrence bears no definite relationship to the intensity or the duration of the primary attacks.

16. Most of the cases of chronic and delusional mania have also dementia superadded.

17. The pathological appearances, naked eye and microscopic, found in the brain cortex in long-continued cases of dementia are capable of explanation on the theory of the degeneration and atrophy of long disused tissue; or they may be the advanced stage of the pathological condition, which is the real cause of the dementia, but which in its early stage we cannot as yet recognize.

18. No merely vascular theory of dementia is tenable.

19. Typical secondary dementia is always hereditary, and its genesis can be traced through the stages of hyper-activity, hyperæsthesia, diminished inhibition, instability, melancholia, mania, and alternation in different generations, or in members of the same generation affected in different degrees.

20. Pure and uncomplicated secondary dementia does not readily supervene on the insanities that occur after full development and before the period of decadence, such as

puerperal and lactational insanities, or those resulting from overwork or emotional causes at that age.

21. Melancholic and alternating insanities, delusional and inhibitory insanities are not the preliminary stages of secondary dementia nearly so frequently as maniacal attacks.

22. Almost all pure cases of secondary dementia will be found to have originated in the developmental (pubescent and adolescent) insanities.

23. Masturbation may be an element in the production of secondary dementia in some cases, but is not a necessary or a constant cause.

24. Idiocy and congenital imbecility represent nature's failures during brain growth, while secondary dementia is the typical failure during brain development.

25. Pure secondary dementia means that the organism has failed in its most highly organized structure and in its most important function just at the point before full reproductive perfection should have naturally been reached.

26. Undue and unphysiological means through a forcing-house mode of education during adolescence without regard to the hereditary capacity and weaknesses of the organism tend towards dementia.

27. The constant changes in each generation of modern civilized life in the adaptation of the human organism to its environments and the special efforts thus rendered necessary by the struggle for existence tend towards dementia through the strain they put on the most delicate of all organized tissues.

28. Adolescent insanity ending in secondary dementia may be regarded as the typical form of mental disease.

29. Dementia would have seemed a more natural sequence of the insanities of decadence (climacteric and senile) than of any others, for in them it would be a mere anticipation of the reproductive and mental death that has physiologically begun.

30. The lower animals, while subject to attacks analogous to melancholia and mania, are not subject to any state corresponding to secondary dementia before the senile period.

31. By prophylaxis in some cases, and by right treatment of the primary attack in others, dementia may be averted, but in many cases it is inevitable through the bad heredity of the individual.

On Post-Epileptic States: A Contribution to the Comparative Study of Insanities. By J. HUGHLINGS JACKSON, M.D., F.R.C.P., LL.D., F.R.S., Physician to the London Hospital and to the National Hospital for the Epileptic and Paralyzed.

Section I. Difficulties of the Subject.—I find that I have not made my opinions as to the nature of Post-Epileptic States clear to many of my medical brethren. I may plead in extenuation that, as the subject involves consideration of Psychology, the Anatomy and Physiology of the Nervous System, and Clinical Medicine, it is not easily presented in a simple way. It would be an absurdity to attempt to simplify it by ignoring its difficulties, and, before such an audience as this, it would be impertinent to deal with it in a popular way.* In the investigation of so large a subject, having the several very different aspects mentioned, we ought to take into very particular account many things which are, I think, commonly little regarded in connection with it, or which are passed over as being irrelevant to it. As I deal with post-epileptic states as they form part of the subject, Comparative Study of Insanities, I must consider the three topics recently mentioned; and, as one of my aims is to show that the same general principles apply to diseases of all parts of the nervous system, I shall frequently take cases of non-mental diseases for illustration.

Section II. Need of Psychological Knowledge.—It would be vain to attempt the scientific elucidation of mental diseases, some of which are post-epileptic states, if we ignored their psychological aspect. This aspect is practically ignored when psychical states and any nervous states are spoken of as being the same thing, or, as it is sometimes said, "different sides of one thing." The confusion of the Anatomy and Physiology of the Nervous System, or of some parts of that system, with Psychology is the bane both of Neurology and

* This paper is an expansion of an address read before the Med. Psych. Assoc. during the Presidency of Dr. Needham. I have not always kept to the style of speaking before an audience. I have divided the matter into Sections. Anyone who has read Herbert Spencer's works will find that I have borrowed largely from them. There is nothing in this article which I can imagine to be of any value which has not been inspired by him. I should, however, be sorry if any crudities of mine were imputed to Mr. Spencer. I strongly urge all neurologists to study his works, and also Fiske's very valuable book, "Cosmic Philosophy."

Psychology. It leads to superficial simplifications, and to crude popular "explanations," most of which are merely verbal. No one is any the wiser for the "information" that a man comatose after an epileptic fit does not move because he has lost consciousness, that an emotion makes the heart beat, or that ideas or sensations produce movements. Such expressions are permissible in ordinary talk, and, perhaps, at a clinical conference, but they ought to be turned out of scientific expositions of diseases of the nervous system. We must be particularly careful not to speak of sensations (psychical states) as if they were activities of sensory elements (physical states). An expression I shall frequently use, "sensori-motor," must never be taken to mean "sensation-motor." Movements always arise from liberations of energy, and never from sensations or any other kind of states of consciousness.

A medical man's aim should be to deal with what are called Diseases of the Mind (really Diseases of the Highest Cerebral Centres) as materialistically as possible. But to be thoroughly materialistic as to the Nervous System we must not be materialistic at all as to Mind. The Popular Evolutionist, when he appears in our medical ranks, will very likely try to show how, by stages of increasing Evolution, Mind is at length "got out" of the body. But no Evolutionist as yet, so far as I know, has attempted that marvellous feat.* We should be content with "getting" the "organ of mind" (Highest Centres) out of the rest of the body. States of consciousness are assumed, in this Address, to be merely concomitant with certain Nervous States, those of the Highest Cerebral Centres. I have nothing whatever to say of the nature of the relation of the two utterly different and yet concomitant things, cerebration and mentation, to one another. As an Evolutionist I am not concerned with this question, and for medical purposes I do not care about it. Even if consciousness was known to be a "function of

* Herbert Spencer says: "The doctrine of evolution under its purely scientific form does not involve materialism, though its opponents persistently represent it as doing so." He speaks of the materialistic hypothesis as being "utterly futile." He frequently insists on the absolute difference between states of consciousness and nervous states. Here is a most explicit declaration. After a consideration of increasing complication of mental states and nervous states, he writes ("Psychology," Vol. i., p. 403): "Of course, I do not mean that material actions thus become mental actions. As was said in Sections 41-51, 62, 63: 'No effort enables us to assimilate' mind and motion. I am merely showing a *parallelism*" (italics in original) "between a certain physical evolution and the correlative psychical evolution."

the brain," it would be necessary, in order to simplify our studies of the most difficult of all diseases—insanity—to artificially separate this function for a time from that other "function of the brain," which is to co-ordinate all parts of the body in most complex, etc., ways.

The Nervous States concomitant (correlative) with psychical states are, according to the doctrine of Evolution, sensori-motor. The Highest Centres (popularly the "Organ of Mind," "Mental Centres," etc.), are, according to this doctrine, only the most complex, etc., and latest developed of a series of centres, every one of which represents impressions or movements, or both. I must remark on the term Impression. It is sometimes used for a kind of mental state, as in the couple "impressions and ideas." I always use it as a name for something purely physical, for a state of sensory nerve-"endings" (properly beginnings); for activities of peripheral structures from which afferent nerves pass to the central nervous system. It is not a good term, but I must have some word, which does not imply anything psychical, for what occurs at the sensory periphery. I can think of no better term than impression, which, when any psychical implications it ordinarily has are eliminated by definition, will serve to go with the term movement. Nervous centres are called sensori-motor because they represent impressions and movements.

It being quite certain that the lower centres are sensori-motor, it is surely a legitimate hypothesis that the highest are so too. Negative lesions of the lower centres produce paralysis, sensory or motory, or both, and it is a legitimate hypothesis that such lesions of the highest centres do too. If the highest centres are not sensori-motor, the Comparative Study of Insanities, some diseases of those highest centres, with diseases of lower centres, is an impossible study. I will at once deal with this dictum.

Manifestly, it is frivolous to compare, or even to contrast, any mental symptoms in cases of disease of the highest centres with any physical symptoms from disease of any lower centres. For example, to compare or even to contrast the negative psychical state, loss of consciousness, with the negative physical lesion producing hemiplegia is absurd. Ignoring such pseudo-comparative studies, I urge that unless the comparison and contrast attempted be between *paralysis* resulting from the negative lesion of the highest centres, *signified by the loss of consciousness,* and the paralysis result-

ing from the negative lesion in the case of hemiplegia, we do not really enter upon the proper Comparative Study of the two Dissolutions. Paralysis from negative lesions of motor central nervous elements is always loss of *movements*. (See Section V.).

It is one of the chief aims of this Address to show that a negative lesion of the highest centres (implied by the negative affection of consciousness which exists in every case of insanity) causes some paralysis, sensory or motor, or both. I have never held the hypothesis that any part of the cerebral cortex is either purely sensory or purely motory, but that some parts are preponderatingly sensory, and others preponderatingly motor. I suppose that in the fore part of the prefrontal lobes sensory representation is a vanishing point, and that motor representation in the occipital lobes is a vanishing point. Hence I consider that from a negative lesion of any part of the cortex there is both sensory and motory paralysis, although the proportions of the two may be enormously different in differently seated lesions.

On the basis that all centres are sensori-motor the Comparative Study of Insanities with diseases of lower centres can be instituted. Thus I shall try to show that in the insanity of post-epileptic coma (acute temporary dementia) there is some universal, I do not say total, paralysis. I wrote (Bowman Lecture, "Trans. Ophth. Soc.," Vol. vi., p. 12, 1886): "Deep post-epileptic coma is psychically dementia, but is, on the physical side, nothing else than some universal, almost total, paralysis—paralysis not only of animal, but of organic parts also, proportionate to the degree of the prior epileptic process.* This contention of mine is, however, denied; let us say, what cannot be denied, that the patient is nearly dead. I dare say my calling the psychical side of the condition insanity (dementia) will be objected to. Let us say that the patient is, or is nearly, mentally dead; this cannot be denied." I here refer those interested in the Comparative Study of Insanities to Dr. Mercier's article "*On Coma*," *Brain,* January, 1887. I gave from that very important article a quotation regarding the psychical and physical nature of Coma, in this Journal, April, 1887. (*Remarks on Evolution and Dissolution of the Nervous System,* in a footnote to Section I.).

* Of course we cannot say that such super-positive phenomena as foot-clonus, passage of fæces, etc., after epileptic fits, are paralytic; but they signify exhaustion of "controlling" nervous elements are indirect evidences of paralysis (or of exhaustion of efferent nerves).

Section III. Remarks on the Anatomy, Physiology, and Pathology of Diseases of the Nervous System—the three Elements of a Clinical Problem.—That a knowledge of the Anatomy and Physiology of the Nervous System is necessary in such an inquiry as this is plain enough. Yet some remarks may not be out of place here. And first as to the use of terms.

The Anatomy of the nervous system must be very carefully distinguished from its Morphology. Nervous Morphology deals with the sizes, shapes, and topographical relations of nervous masses, of convolutions for example. Minute nervous morphology deals with the sizes and shapes of nerve-cells and with thicknesses and lengths of nerve-fibres. Nervous anatomy deals with centres, that is with regions of the nervous system *as they represent parts of the body*. Minute nervous anatomy deals with cells and fibres, as they make up nervous arrangements representing impressions or movements, or both. The morphology of parts of the Rolandic area was well known before the researches of Hitzig and Ferrier; but until their experiments nothing, at least in the opinion of nearly all medical men, was known of the anatomy of these parts. By his discovery of the trunk-centres Horsley has added greatly to our knowledge of the anatomy, in the proper sense of the term, of the cortex cerebri. Moreover, Horsley and Beevor have done inestimable work in the same direction by their minute and precise investigation of the "motor area."* As an Evolutionist I pay little respect to morphological divisions; for example, I ignore the division of the lower part of the central nervous system into the morphological masses, spinal cord, medulla oblongata, and pons Varolii, and speak of a Lowest Level of Evolution, an anatomico-physiological unity, made up of some elements of all these masses.

A great part of our clinical knowledge is nothing else than anatomical and physiological; pathology is only the third element of a clinical problem. In other words, we have in every case of disease to deal with an abnormality of Structure (anatomy), Function (physiology), and Nutrition (pathology). I have illustrated this dogma at length ("Brit. Med. Journal," July 21, 1888). To locate a lesion in any centre is an anatomical proceeding. All about nervous discharges (liberations of energy), the amounts and rates of those discharges (the quantity of energy liberated and the rates of its liberation), and the degrees of resistance en-

* "Phil. Trans.," Vol. clxxviii. (1887), B. pp. 153-167, and Vol. clxxix., 1888.

countered by nerve impulses in cases of diseases of the Nervous System is as much abnormal Physiology as consideration of these things in healthy people is normal Physiology. Pathology, an abnormality of the Nutritive process, ought to be most carefully distinguished from abnormal physiology. (Nutrition is the taking in of materials having potential energy; physiology is concerned with the liberation of energy thus acquired.) The pathological process (abnormal nutrition) is that which, directly or indirectly, *leads to* abnormal functional (that is, abnormal physiological) states.

There are two diametrically opposite kinds of abnormal functional states of nervous elements, negative and positive. That pathological processes produce negative functional states, negative lesions, I need not stay to illustrate. There are two very different degrees of positive or super-positive functional states which should be very carefully distinguished.

The condition of nerve cells in what I call a "discharging lesion," is an example of the first degree. It is not a pathological condition; it is a crude physiological state *resulting from* a pathological process, resulting *directly* from it. In the case of epileptiform seizures the "discharging lesion" is most often the result of a tumour or, more correctly, of a secondary abnormal nutritive process, probably a local encephalitis produced by the tumour. In cases of this degree of positive functional change there are occasional sudden and excessive discharges. The second degree of positive functional change is not the *direct* result of any pathological process whatever. There *is* in these cases a pathological process, but it produces a negative functional state of the elements, normally inhibiting (controlling) those other elements in which the second degree of positive functional change exists. Thus foot-clonus in a recent case of hemiplegia results directly from co-operating agency of certain over-active anterior horns. But no pathological process has touched these lowest motor centres; that process is morphological miles above them; it has produced a negative state of fibres of the internal capsule; the motor centres immediately concerned with the foot-clonus are only in physiological over-activity from loss of control. This degree of functional change does not issue in occasional, sudden and excessive discharges, not, at any rate, without afferent excitation.

It may seem strange to speak of *symptoms* resulting from nervous activities abnormal in degree, which are not of

pathological origin, that is, not of direct pathological causation. But a little thought will show that this is so, especially if we consider simple cases. Thus such symptoms as foot-clonus after epileptiform seizures, and erection of the penis in cases of transverse lesion of the lower part of the cervical cord * evidently signify hyper-physiological activities from "loss of control" only. No sort of pathological process has touched the nervous elements immediately concerned in the production of these symptoms. Experiments on lower animals, equivalent to the effects of pathological processes in man, are even more strikingly proving. After section of the vagus (equivalent to a pathological process) the heart goes faster ; the heart itself is simply "let go," is only in hyper-physiological activity. "Paralytic secretion" is a more obtrusive example of over-physiological activity merely ; the over-active gland has not been touched, only nerves going to it have been cut.

Section IV. On the Duplex Condition of Nervous Symptomatologies—Positive and Negative Elements in Symptomatologies— To distinguish between symptoms owing to the direct action of disease in the sense of pathological process and those which are its indirect consequences—which are owing directly to activities of quite healthy nervous arrangements, and which are normal, too, except often for hyper-physiological exaltation—is of supreme importance in the study of diseases of the Nervous System. I shall again illustrate the distinction regarding insanities in a later section. I now give other kinds of illustrations of it from simpler morbid affections of the nervous system.

It is not an exaggeration to say that more than "half" the symptomatology of a case of paralysis of an external rectus from lesion of the trunk of a sixth nerve, is owing to over-activity of nervous arrangements which are beyond all question perfectly healthy. Disease, in the sense of pathological change, is responsible only for the very local paralysis, that of one small muscle. The double vision is impossible without activity of *intact* nervous arrangements of centres

* This is a complex illustration, but one worth giving as part of the evidence towards showing a series of inhibitions in the central nervous system. The nervi erigentes inhibit the arteries of the penis. But the part of the visceral column (Stilling's sacral nucleus) from which these nerves come is itself inhibited so that the penis is ordinarily flaccid. In cases of complete transverse lesion of the lower cervical cord or upper dorsal cord inhibition is subtracted from Stilling's inhibitory nucleus, whereupon it, being "let go," inhibits the arteries of the penis, they become dilated, and then the organ is turgid.

for moving both eyes; the "erroneous projection" (with consequent vertigo and reeling) is owing to over-activity of certain nervous arrangements of all orders of centres, highest included, which are perfectly healthy. In a paper in this Journal (April, 1887, Section X, "Disorders of Co-ordination with Negative Lesions") I have illustrated the same principles. "Half" of the symptomatology of "disorders of co-ordination" with negative central lesions is paralysis owing to that negative lesion—is loss of some *movements.* But the other "half" is from forcing of other movements by over-activity of perfectly healthy nervous arrangements.

The getting along, however imperfectly, of patients ataxic in tabes, or of patients who, having disease of the cerebellum, reel from one place to another, is by agency of quite healthy nervous arrangements made to do more than normal owing to lack of others which have been destroyed by pathological changes. Taking the second case, the smallest degree of thought will show that the movements made in the reeling about, the movements by which the patient does in some way go along, cannot possibly result from the pathological change which has *destroyed* some elements of the cerebellum, which has made a hole in that organ. To say that they do, is asserting that they are caused by a void, caused by nothing at all. It is only by entertaining vague notions about "a co-ordinating centre" (the lineal descendant of "faculty of co-ordination") that we can speak of a destructive lesion of the cerebellum as "causing inco-ordination of locomotion." A negative lesion of this organ causes only that "half" of the symptomatic condition which is paralysis (loss of movements); the patient gets along by agency of other movements, the nervous arrangements for which are intact; he gets along by them badly from lack of those lost. I suppose that in an early stage of tumour of the middle lobe of the cerebellum the paralysis is loss of some of the movements of the spinal muscles; the erratic gait is owing to over-development ("forcing") of other movements of the same muscles, and also of some of those of the muscles of the legs. The "forced" movements of the legs serve to some extent to compensate for the movements lost. The essential state of things, the state produced by disease, pathological process, is paralysis. If we cannot say that in the ataxy of tabes there is loss of central *motor* elements effected by pathological changes, it is evident enough that in an early stage of this inco-ordination there is underdoing of some movements,

those in which the peroneus longus is chiefly concerned (equivalent to paralysis), and overdoing (forcing) of others, those in which the tibialis anticus is chiefly concerned. I will illustrate the duplex symptomatology of Nervous Diseases by another series of cases.

I submit, it must be taken quite hypothetically, that the tremor in paralysis agitans, the rigidity, exaggerated knee-jerk and foot-clonus in some cases of hemiplegia, the movements in athetosis and those in spasmodic wry-neck are owing to over-activity, or to non-antagonized activity, of nervous elements which are perfectly healthy; these over-movements are, I believe, very indirect consequences of negative lesions which directly produce paralysis, loss of some movements. The supposition is that there is loss of some movements of muscles from a negative lesion and over-development of other movements *of the very same muscles.* In other words, I do not believe that continuous and persistent liberations of energy (discharges) by nerve-cells in these cases are the direct results of pathological processes inducing exaltation of function of those cells. Pathological processes do induce those excessive exaltations of function which I call "discharging lesions" (first degree of functional change), but they issue in occasional, in "explosive," discharges.

The hypothesis is that the principle of duality of symptomatology applies, with a very obvious exception, to all nervous diseases with negative lesions, insanity included; that negative lesion alone is the result of pathological change and produces negative symptoms; the other symptoms, completing the symptomatology, are owing to activity, often over-activity, of healthy nervous arrangements, and are abnormal physiological states.

Section V. The Three Levels of Evolution of the Central Nervous System. Evolutionary Differences between the Lowest and Highest Levels. Movements v. Muscles. Positive and Negative Movements.—I urge that to limit attention to the Anatomy and Physiology of the brain proper in the scientific study of "Diseases of the Mind" is misleading. I submit that there are three Levels of Evolution (roughly stated in this Journal, April, 1887, Section 5) of the Central Nervous System. The Highest Centres (popularly "Mental centres") of the Cerebral System make up the Highest Level. This level is only a most complex evolution out of the Middle Level, as the Middle is a less complex one out of the Lowest,

and as the Lowest is a least complex one out of parts of the body,* which parts that Lowest Level represents most nearly directly.† Speaking very roughly indeed, we may say that from the separate, detailed representation of parts of the body by the lowest centres up to the Highest Cerebral Centres there is a gradual "mixing up" by stages of increasingly complex representation, so that at the acme of representation each unit of the Highest Centres represents (re-represents) the whole organism in most complex ways, no two units of those centres representing all parts of the body in exactly the same degree and order. In this way the "*organ* of mind," not the *mind*, is "got" out of the rest of the body.

If anyone is interested in the Nervous System so far only as its anatomy and physiology correspond to psychology, he should begin his studies of it with the Lowest Level and the parts of the body this level directly represents. It consists of the centres of the cord, medulla and pons, or, more carefully, of all centres from and to which spinal and cranial nerves come and go. We certainly should begin with this Level for the Comparative Study of what are called Diseases of the Mind, for they are really some diseases of the Highest Level, which has inevitable relations with the Middle and Lowest Levels. It is an impossibility to take a realistic view of an ordinary epileptic fit (epilepsy being a disease of the Highest Cerebral Centres) unless we consider the Lowest Level. The epileptic process begins in some part of the Highest Level (in some part of the "mental centres") and when the fit is a severe one all the levels are greatly involved; the peripheral effects (convulsion and its equivalents) are directly dependent on discharges (tertiary) of the Lowest Level. The post-epileptic condition, supposing the fit to have been a severe one, is the sum of the after-effects of discharges of all the levels; this condition is, I urge again, some universal paralysis. Moreover, in post-epileptic mania, the Lower Levels are engaged in producing the movements, engaged subordinately to all that is left intact of the Highest; another reason why we must take

* By the expression "parts of the body" is here meant all parts other than the Nervous System; they make up the Lowest Level of the whole organism.

† The Lowest Level is cerebro-cerebellar; it is the lowest level of both the cerebral and the cerebellar systems. I ignore the cerebellar system for the most part in this Address, so that by Highest Centres highest centres of the cerebral system are meant.

them into account in this inquiry. Before I go further, I must remark on movements.

It is necessary to bear in mind that motor nervous centres represent movements of muscles, not, so to put it, muscles in their individual character. The simplest movement is not the arithmetical sum of the contractions of all the muscles engaged in effecting it; it is the algebraical sum of the co-operating and antagonizing contractions of those muscles. (The same, *mutatis mutandis*, for sensory centres and impressions.) Paralysis from negative lesions of motor nervous centres is always loss of movements.

There are differences of evolutionary rank of movements of the same muscles. We can illustrate this by losses of movements. In progressive muscular atrophy there is loss of simplest movements of the hands (cerebral and cerebellar) from negative lesion of certain motor centres (anterior horns) of the Lowest Level; in paralysis agitans there is loss of more complex (cerebral) movements of the hands from negative lesion of certain motor centres of the Middle Level; in general paralysis there is loss of some of the most complex movements of the hands, from negative lesion of motor centres of the highest level, from destruction of motor elements of the sensori-motor bases of tactual ideas. These illustrations may be considered to be hypothetical, but they will serve my present purpose; they are intentionally artificialized. Referring back to a previous statement on the compound paralysis of the post-epileptic condition, I now say that when the fit has been a severe one there is loss of very many most complex, of many less complex, and of a few simplest movements.

One thing to be insisted on is that from destruction of a part of a motor centre there may be loss of some movements of all the muscles of a muscular region with retention of other movements of all those same muscles. This is the state of things in imperfect paralysis of limbs in hemiplegia, and is an illustration of duplex symptomatology. Referring to the statements, Section IV., as to tremor, rigidity, and athetosis, but taking only the case of rigidity in perfect hemiplegia for illustration and limiting illustration to the hand, we see that there is loss of some movements of muscles of the hand and over-development of other movements of those muscles; there is, or is in effect, loss of all the complex cerebral movements of it and over-development of all the simple spinal (lowest level) movements of it (possibly the cerebellum is also concerned in this over-development).

When we speak of representation of movements we tacitly take into account motor elements of centres empowering inhibitory nerves; they effect what may be called negative movements. Similarly, with proper changes, for sensory elements: the depressor nerve may be called a negative sensory, or afferent, nerve. So, then, centres represent positive and negative movements, and positive and negative impressions; this qualification is always to be understood when the expressions "loss of movements" and "loss of impressions" are used.

Negative lesions of the nervous system, of any part of it, "organ of mind" not excluded, never produce anything else than loss of impressions or of movements, or of both. There *is* something more in the symptomatology of cases as I have recently (Section IV.) illustrated by very different symptomatologies.

Although it involves great recapitulation from the paper (this Journal, April, 1887) several times referred to, I must speak here in detail of the evolutionary differences of the Lowest and Highest Levels of the central nervous system. I neglect the Middle Level in the following remarks, one reason being that, so far as I know, no one agrees with me in dividing the brain proper into Middle and Highest Centres. But I take it for granted that at least two levels of the central nervous system will be admitted by all.

The Lowest Level, in comparison with the Highest Level, represents impressions and movements of all parts of the body most nearly directly; it is a series of centres (properly segments), representing parts of the body in (1) few and simplest combinations (little differentiation), (2) in most general ways (little specialization), (3) in greatest detail (smallest districts of the body, least integration, "for local affairs"); (4) the centres on this level have fewest interconnections (little co-operation). If we take note only of the organic centres on the Lowest Level I think it is plain that this formula applies closely. The cardiac and respiratory centres obviously are (1) most simple; they have few, if any, *different* movements; there is, indeed, practically a succession of similar movements at equal intervals. (2) These centres have little speciality; obviously they are for most general ends, they serve the body as a whole, in essentially the same way at all times from birth to death. (3) That most* of the

* It may be said that the vaso-motor centre does not represent a limited region of the body, but the whole arterial system, and therefore that the formula

lowest centres represent limited regions of the body is plain (pupillary, respiratory, cardiac, bladder, etc., centres). (4) The interconnections the organic centres have are certainly few; obviously pupillary activities, respiration with circulation, digestion, micturition, etc., go on with a great degree of distinctness from one another and with much independence of one another.

The Highest Level differs from the Lowest only in grade of Evolution. The centres of this Level represent impressions and movements of all parts of the body triply indirectly and in comparison with the Lowest Level, in (1) most complex combinations, in (2) most special ways; (3), each represents very extensive areas of the body, if not the whole body (greatest integration); (4), these centres have the most numerous interconnections. That this formula applies to the highest centres is essentially in accord with current doctrines. It is certain that the "organ of mind" is (1) concerned with most numerous different things (2) of high degrees of speciality; (3), that every psychical process is an act of a person, and, therefore, the inference is irresistible that there are, correlatively, activities of most highly integrated centres, of centres each representing all parts of the body as a whole; (4), and that by it most elaborate relations of—(1) very complex, (2) special, and (3) highly integrated combinations of—impressions and movements in co-existence and sequence are effected.

That the centres or units of the Highest Level have, during their activities, attendant psychical states, and that the centres of the Lowest Level have not, if they have not, makes no difference whatever as to what has been said of the evolutionary differences of the two Levels; we have been dealing in this section with things physical, with a sensori-motor mechanism. I cannot too often repudiate the notion that any account of the *organ* of mind is an attempted explanation of *mind*.

does not apply. It may, however, be that this great centre is a sort of mosaic of minor centres; there seems to be one part of it which especially represents the arterial system of the liver. Moreover, there are minor vaso-motor centres in the spinal cord. In the text I am only considering the Lowest Level passingly. In another article I shall try to show that in the fore part of the Lowest Level there is a rudimentary highest centre; I mean a centre co-ordinating all parts of this lowly evolved level in a simple way. This hypothetical highest centre will be very rudimentary in man. One would suppose that the amphioxus must have such a centre to give some degree of unity to its simple self. Evolution is not, as we state it in the text, an even process, not one to be symbolized by what is called Involution in algebra.

Section VI. On Degrees of Detachment and Degrees of Independence of Levels of Evolution.—Another way of regarding the evolutionary process is to say that the several Levels, in spite of their dependence on one another, attain, as Evolution progresses, a degree of independence of one another.

As Evolution progresses the highest centres not only gradually develop (become increasingly complex, etc.), but also become more and more detached from, and more independent of, the lower centres out of which they have been evolved. Their detachment and independence are never complete, except hypothetically, in the case of those elements of them which are the physical bases of Constants ("Forms of Thought"). There are degrees of detachment and of independence. By the double process of increasing complexity and increasing detachment we gradually "get above" our lower mere animal selves; in popular language, we become less and less at the mercy of our lower instincts. Our highest sensory and highest motor centres (together the "organ of mind") can energize, to a large degree, independently of the lower centres out of which they have been evolved, and by aid of which they have been developed; consequently they can act independently of the environment. Spencer writes ("Prin. Psych.," Vol. i., p. 546): ". . . Manifestly, the more extensive and more intricate the central plexus [highest centres] grows, the more *detached* may these [what under their subjective aspects we call feelings and ideas] become from the actions—the more may the impressions produced by things and relations reverberate through the nervous system—the more may there arise trains of thought." Fiske writes ("Destiny of Man," p. 46-7) : ". . . There is no consciousness except when molecular disturbance is generated in the cerebrum and cerebellum faster than it can be drafted off to the lower centres. It is the surplus of molecular disturbance remaining in the cerebrum and cerebellum *and reflected back and forth among the cells and fibres of which these highest centres are composed, that affords the physical condition for the manifestation of consciousness.* Memory, emotion, reason, and volition begin with this retention of a surplus of molecular motion in the highest centres." The part I have italicized is very important.

Not committing Mr. Spencer or Mr. Fiske to any crudities of my own, I would thus illustrate. Thanks to the protec-

tion of the highest sensory centres by the lower sensory centres (which are "resisting positions," as well as "reservoirs of energy"), the highest sensory centres can energize uninterfered with by the environment. Again, the sister highest motor centres, thanks to the resistance of the lower motor centres, can act without producing peripheral reactions upon the environment; the muscular periphery is "protected" from the highest motor centres. There can be activities limited to the highest links of the great sensori-motor chain. Here we have the physical conditions answering to faint states of (object) consciousness. When the highest centres are acted on from the sensory periphery, and are thus put in strong activity, they do react on the muscular periphery; the whole of the sensori-motor chain is then engaged, and there are correlatively vivid states of (object) consciousness.

Thanks to the "protections" spoken of, there occurs Internal Evolution in our highest centres; we can have combinations never actually experienced ("ideal combinations"), as, indeed, we obviously must have when dreaming, and certainly have, too, during much of our waking lives. I here give a quotation from my Croonian Lectures ("Brit. Med. Journal," April 12th, 1884):—"There is something more: there is what I will call Internal Evolution, a process which goes on most actively in the highest centres. On account of its great preponderance in the highest centres of man, he differs so greatly from lower animals. We acquire numerous different ideas: that is to say, there is, on the physical side, an organization of many different nervous arrangements of our highest centres during actual converse with the environment. When, as in sleep, and in 'reflection,' this actual converse ceases, the quasi-spontaneous slight activity of the highest sensory centres is uninterfered with by the environment, they being protected from it by the lowest and middle sensory centres; and, consequently, there are no reactions on the environment, the highest motor-centres being resisted by the middle and lowest centres. In such case (sleep, reverie, reflection, etc.) the very highest nervous arrangements of the highest centres, those in which entirely new organizations can be made, will be in least activity, and the next lower [nervous arrangements] of those centres in greater activity. The nervous arrangements of the highest centres, or some elements of them, are 'left to fight it out among themselves;' new combinations arise, the survival

of the fittest [and 'the effecting of the possible']. Manifestly new, although evanescent, combinations are made during dreaming, but I contend that permanent rearrangements (internal evolutions) are made during so-called dreamless sleep (I believe that the late Dr. Symonds, of Bristol, stated this in effect)."

Section VII. Evolution of the Physical Basis of Consciousness.—I will state a particular case to illustrate relations of the two levels (still neglecting the middle level) to one another and their degrees of detachment and independence. I will speak arbitrarily of one element of a state of (object) consciousness, artificializing greatly for ease of illustration. I will use the term "emotional centre" (of course, there is no such separate centre), making it mean a part of the highest centres concomitant with the activities of which emotions arise. (One part of the artificialization is by neglect of the representation of animal parts in this centre; the so-called emotional centre represents all parts of the body, although doubtless the heart and other viscera first and most.)

Certain parts of the body are represented directly by centres on the Lowest Level in simple and in general ways, in detail, and with comparatively few interconnections, as they serve in doing the menial work of digestion, circulation, respiration, etc. But all these same parts are represented indirectly, in most complex and special ways, in intricate combinations and with many interconnections in the highest centres, being represented again (re-represented) in those centres through the intermediation of the centres of the Lowest Level, which, as we said, represent them directly as serving in menial work. The indirect and very complex, etc., re-representation of these parts of the body by some of the nervous arrangements of the highest centres is the "emotional centre." The anatomical sub-stratum of an emotion (let it not be forgotten that I am artificializing), the "emotional centre," is not the sum of those centres on the Lowest Level serving in menial work which I mentioned above; it is part of their evolutionary sum. The "emotional centre" so constituted has become detached from, largely independent of, the very centres of the Lowest Level out of which it has itself been evolved. For we can have faint emotions (without manifestations) during slight activity of the "emotional centre" whilst the Lowest centres out of

which that so-called centre has been evolved are at the same time steadily engaged in mere menial work. But during vivid emotions the "emotional centre" is in strong activity, and there are then manifestations. Now the centres on the Lowest Level are, subordinately, engaged, too; and, so far as they are engaged in this way, their service in menial work is much interfered with; it is suspended when sudden fright causes fainting, and is put an end to when it kills.

In a paper in this Journal, April, 1887 (last paragraph but one), I gave an outline of the evolution of the anatomical substrata of the four artificially separated elements of states of (object) consciousness; that is, of the evolution of the physical bases (together, the highest centres) of Will, Memory, Reason, and Emotion (together states of consciousness) out of the Lowest centres which centres represent limbs, viscera, etc., directly, in simple ways, and, so to say, for commonplace duties and as serving in menial work. I did this in more detail in the Croonian Lectures, "Brit. Med. Journal," April 12th, 1884.*

The foregoing remarks on the evolution of the physical basis of consciousness bear very closely indeed on our subject. For the epileptic fit is nothing whatever else than the result of a sudden, excessive, and rapid discharge beginning in some part of the highest centres ("organ of mind"), that is, beginning in the sensori-motor nervous arrangements which are the physical bases of Will, Memory, Reason, and Emotion (together states of consciousness). There is after it paralysis owing to negative functional state (exhaustion) of these nervous arrangements, and also, in a less degree, of those of the lower centres out of which the physical bases of the four elements of states of consciousness have been evolved.

* There is an unfortunate misprint in the latter account. For "volition of the movement" (an expression mixing up the psychical and the physical) read "volition of the moment."

(To be continued.)

*Some Remarks on Boarding-out as a Mode of Provision for Pauper Insane.** By A. R. Turnbull, M.B.Edin., Medical Superintendent of the Fife and Kinross District Asylum.

The subject of boarding-out is not in any way a new one. In 1864 Dr. (now Sir Arthur) Mitchell described very fully the condition of the insane in private dwellings in Scotland, and while exposing the many abuses that then existed, showed also that, under proper regulation, domestic care for a certain class of lunatics possesses many advantages, and urged that in it there could be found one very suitable method of providing against the accumulation of chronic insane in asylums. Since that time the subject has always been more or less prominently receiving attention from those who are concerned in providing for the insane. Therefore I cannot hope now to lay before you any fresh facts in reference to it. My object is rather, in the short time at my command, to draw attention to some of the outstanding features of the system, in the hope of raising a discussion and eliciting the opinions of members regarding it, especially the opinions of our friends from the other side of the border and from Ireland, where the conditions influencing the provision made for the insane are somewhat different from ours, and where boarding-out has so far not been practised to the same extent as in Scotland.

I shall arrange my remarks under the following heads:—(1) The object of boarding-out; (2) its financial aspect; (3) its advantages; (4) its requirements; (5) the class of patients suitable for it; and (6) the proportion of patients who can thus be provided for.

1. *The object of boarding-out.*—The boarding-out system starts from the view that for a certain proportion of our insane institutional care, either in asylums or in the lunatic wards of poor-houses or workhouses, is not necessary, and that suitable domestic care can supply all that is needed. This view is universally admitted in regard to the non-pauper insane. Many private patients are treated at home during the whole course of their illness; others are placed in asylums during the acute stage of the malady, and are taken home again when they have passed into the chronic

* Read in slightly abridged form in the Psychology Section, British Medical Association, at the meeting in Glasgow, August, 1888.

and more manageable stage. We here recognize that there are different degrees and forms of insanity, and that restrictions and control which may be necessary in one form or stage are not essential at another time. And in practice it is often found that the question of institutional control is determined not alone by the actual form of the mental derangement, but also very largely by the social circumstances of the patient, which may or may not allow of home treatment being satisfactorily carried out. The same principle is applicable, though within narrower limits, to the pauper insane. With them it is advisable—one may almost say necessary—that all the cases of acute mental derangement and all the cases of curable insanity should, in the first instance, go to the asylum, for narrow means make it almost impossible for the relatives to give the time and bear the expense required to secure efficient control at home and to promote the best possible chances of recovery. Dr. Fraser has pointed out that this rule is not without exceptions, and has referred to instances in which patients belonging to the class which produces our pauper insane have been treated to recovery at home. For our present purpose, however, we need not allude further to these cases, partly because they are exceptional, and partly because the main object of boarding-out is to provide for chronic, not for recent, cases of insanity. When asylum-control has been resorted to, the case, if it does not end in recovery or death, passes into the chronic stage, and may continue to be marked by characteristics which render domestic care insufficient or unsuitable, such as severe periodic exacerbations of excitement or depression, or great mental perversion or degradation, or propensities and habits which make the patient offensive or dangerous to himself or others; and then continued asylum-detention is necessary. But in a considerable number of the chronic insane the symptoms are no longer severe; the patient is more or less enfeebled in mind, with perhaps some mild delusions, and cannot now hold his own in the battle of life; but he is free from active excitement or depression, is docile, manageable, able in some degree to appreciate his surroundings, and able under supervision to lead a quiet, enjoyable, and to some extent useful life in circumstances in which his mental weakness is recognized and allowed for. He has reached the stage of mild chronic dementia—a condition in which we know from clinical experience we can do little, if anything, towards raising the

mind to its former higher standard, but have to content ourselves with making the patient's surroundings as comfortable for him as circumstances will permit. Here asylum-treatment cannot do anything further towards promoting recovery, and is not necessary on other grounds; and such cases can be suitably provided for under domestic care.

Turning to cases of congenital defect in the pauper class, we find, just as with private patients, that often asylum-treatment is not required at all, and that in other instances the necessity for asylum-care is not infrequently decided, not by the degree of the mental trouble, but by other circumstances in the patient's surroundings. In the latter class, if the untoward circumstances can be corrected, the need for asylum-care is obviated. The following paragraph, taken from the annual report for 1887 of the Fife and Kinross Asylum, gives some examples of this fact:—

"Three of the male cases [pauper admissions] illustrate very well the fact that the number of admissions to the asylum is not a matter of mental disorder pure and simple, but that extraneous circumstances have a great influence on it. The patients in question were respectively 51, 41, and 35 years of age; in all of them the insanity had existed and been recognized from childhood, and they all had lived for years under the charge of their relatives. There was no special change in their mental state last year to render asylum-control more necessary than before—they were in that respect practically the same as they had been for many years before; but their domestic circumstances had changed, depriving them of their former guardians. In one case the sister who took care of the patient was leaving home to be married; in another the frailty of advancing years made the mother unable any longer to manage her insane son; and in the third the relatives were negligent of their duty to the patient. Thus all the three had to be placed temporarily in the asylum. A residence of some months there was distinctly beneficial in each case in improving the bodily health and in training the patient to more orderly and steady habits; then suitable homes were found for them elsewhere, and the three were duly boarded-out."

It should be kept in view that the first consideration in our lunacy-administration must always be to do everything that can conduce to the recovery and the welfare of the patients. As long as the special treatment of an asylum promotes that object in a way that cannot be done elsewhere, the patient ought to have the benefit of it. But when he

has reached the stage in which the asylum cannot do anything more for his recovery, and is not necessary for his proper control—when, in fact, the asylum becomes merely a place of detention for him because he happens to be still of unsound mind—the question arises: What is the standard of care required? The answer is that the patient should, as far as possible, be placed in the circumstances natural to his rank in life. Just as in a hospital for general disease, when treatment cannot do anything further to promote recovery or alleviate symptoms, the patient returns to his own home; so in the hospital for the insane, when the same point has been reached, the patient should, if possible, return to his every-day mode of life. The natural plan would be for him to return to the care of his immediate relatives. This is what actually takes place in many instances; but in a large number of cases it is impossible or unadvisable for the patient to live with relatives, and then he has to be placed under the guardianship of a stranger. In either case it is expected that he shall be regarded as a real member of the family and treated as such. He should share the family sitting-room, eat at the same table, sit by the same fireside, and, so far as his mental state will allow, join in the usual occupations of the household. The female patients help in the house work, wash up dishes, etc.; the male patients assist in the garden, go messages, or perhaps look after the cow. The endeavour is to make the patient's life approach as nearly as possible to the mode of life he would have led if he had not been of unsound mind. As I have already said, it would be more natural to place the patient with relatives than with strangers; but this is not always possible; and in making a choice of guardianship each case must be decided on its own special circumstances. Similarly it is not natural to place many patients together. The sane members of the family or community should far out-number and out-weigh the insane members. The patient's insane feelings and habits should be counteracted and repressed by association with sane people, instead of bulking largely and perhaps gaining ground from association with other lunatics. I believe I am right in saying that the feeling of the General Board of Lunacy for Scotland is that the large aggregations of patients which have sprung up at Kennoway, Gartmore, and other places are unadvisable, and have arisen from force of circumstances, and not from any belief that colonies of the insane are best suited for our patients.

I would sum up all this by saying that boarding-out is simply trying to do, under appropriate circumstances and in a systematic way, for pauper patients what is done (and, as we believe, rightly done) as a matter of course by the relatives in the case of many private patients.

2. *Its financial aspect.*—Much valuable information on this and on other points connected with boarding-out is given in the annual reports of the General Board of Lunacy for Scotland, and especially in the appendices contributed by the Deputy Commissioners. The payment for an insane boarder varies very much in different cases. When the patient lives with near relatives a small modicum of assistance from the Parochial Board may be sufficient in supplementing the guardians' willingness to take care of their afflicted kinsman. When the patient is placed with a stranger-guardian the allowance must be larger, and enough to cover the patient's maintenance and repay the guardian's trouble. The amount necessary for this varies considerably in different parts of Scotland, according to the mode of life in the district. In Fife, which is mainly an agricultural county, the usual allowance is 7s. per week for a male boarder, and 6s. for a female boarder, exclusive of clothing and medical attendance. Dr. Lawson has calculated the cost of aliment of a sane person in the same rank of life, and has shown that an allowance at the above-named rate is amply sufficient to cover the cost of maintenance and lodging of either the sane or the insane person. In the Scotch Lunacy Blue-book for 1886, the average daily cost of boarded-out patients is given at 10d.; in twelve district asylums the average daily cost per patient was 1s. 4d. The former figure includes a charge for rent; the latter does not, and when a sum of £10 a year (a very moderate allowance) is added for rent, the charge per head in district asylums is raised to 1s. 10½d. (In passing, it may be mentioned that in the Scotch District Asylums the maintenance of the patients is paid from parochial rates, while the charge for providing and keeping up the buildings—the charge for "rent"—is paid from a separate assessment levied on the counties and burghs within the district.) In the Blue-book for 1887, just issued, Dr. Fraser gives a very instructive table showing the result of an inquiry made by the authorities of the Barony parish of Glasgow into the comparative cost of keeping patients in their asylum at Woodilee, and of having them boarded in private dwellings at Balfron. The figures per

head per week in the asylum (including rent) were 13s. 7d.; in private dwellings 8s. 9d. For patients kept in the lunatic wards of poor-houses the daily average cost of maintenance in 1886 was 1s 1d. We naturally expect that for the class of cases in which boarding-out can be resorted to, the cost should be less than for the asylum class of cases, which includes the acute, destructive, and expensive patients. But even after making allowance for this, when we consider that the charge for rent alone would be 6½d. per day if the patient were kept in the asylum instead of being boarded-out, we can, I think, have no difficulty in seeing that the boarding-out system is considerably cheaper than the institutional system. In our lunacy-administration economy must have its weight, so long as efficiency is not sacrificed; and as in the boarding-out system the patients are not deprived of anything that would promote their health or happiness, its comparative cheapness becomes an argument in its favour of great weight.

3. *Its advantages.*—Boarding-out has advantages in various directions, but I shall summarize the points under this head as briefly as possible. (1) It provides a natural, healthy, and satisfactory mode of accommodation for a certain proportion of our insane. (2) It is beneficial to the patients, as I hope to show in another part of this paper. (3) It is economical, as just shown, both by lessening the burden on the parochial rates, and by lessening the assessment that would be necessary to provide asylum accommodation for the full number of patients. I estimated that in Fife the boarding-out of 25 patients in 1882 represented a relief to the county assessment of a capital sum of at least £3,750. (4) It lessens very considerably the pressure on asylum accommodation, thus enabling the institutions to turn more to their proper purpose of acting as hospitals for the cure of the insane, instead of being only specialized poor-houses, mere lodging-houses for persons of the pauper class who happen to be of unsound mind.

It has been very properly pointed out that in every country some lunatics, in large or small number as may be, are kept in private dwellings, and that this must always be the case. The special feature in Scotland is that the lunatics so kept come under the inspection and control of the central authority just as much as those in institutions, and that the method of domestic care is systematized and made use of for properly-selected patients.

4. *Its requirements.*—These are (1) a proper selection of patients, regarding which I shall have to say something immediately; (2) a supply of suitable guardians; and (3) proper official inspection. The guardians must be persons prepared to give efficient and kindly care to the patients, and to treat them as real members of their family. It is evident that the freedom of movement and kind of occupation required for the patients are much more easily obtained in country districts than in towns, and consequently boarding-out is best carried out in rural districts. It is frequently said that boarding-out is impossible in certain districts because suitable guardians cannot be got. This difficulty is often, I think, more apparent than real. In Fife, where not only the patients belonging to the district, but also a very large number from outside the district, are placed, the supply of guardians is still unexhausted, and the applicants for boarders are, as I know from personal observation, considerably more numerous than the patients who are fit to be sent to them. It may be said that Fife is exceptionally situated in this respect. True; but in other districts in Scotland, as well as in England and America, where this same want of guardians has been alleged, it has been found that they are forthcoming in sufficient number when an earnest effort at boarding-out is made.

Regular inspection by a central authority is, I consider, an essential feature in the system; but regarding the method of inspection I need say nothing here.

5. *The class of patients suitable for boarding-out.*—This has already been incidentally indicated to some extent. A large proportion of the boarded-out patients in Scotland are cases of congenital insanity in its less extreme forms, for whom institutional treatment has never been required or been required only for a short time. The remainder are cases of acquired insanity, which may or may not have been under asylum treatment for longer or shorter periods, which are now in the quiet chronic stage, and which are generally incurable, though not necessarily so. Mainly they are cases of dementia, more or less marked, or of mild delusional mania. I have seen cases with epilepsy and with paralysis boarded-out, but it is evident that in such cases special arrangements must be made for nursing and care and for a higher rate of payment than usual. Both in the congenital and in the acquired forms of insanity there are three questions which must be answered in the negative before we can say a patient is fit for boarding out. (1) Is he dangerous to

himself or others? Thus the existence of suicidal or homicidal tendency, periodic exacerbations (as in recurrent mania or melancholia), strongly-marked delusions leading to outrageous or very eccentric conduct or to violence, epilepsy with excitement, confirmed habits of wandering, progressive brain disease, etc., are all contra-indications to boarding-out. (2) Is he offensive to public decency? Extreme mental degradation, dirty habits, the habitual use of foul or abusive language, exposure of the person, etc., are conditions which make the patient unsuitable for domestic care. (3) Is there risk of sexual accident? If there is active eroticism the case should not on any account be boarded-out. If without active eroticism there is simply facility of disposition, rendering the patient an easy prey to others, much must depend on the special circumstances of the case and the efficiency of the guardian. A good guardian may be able to keep the patient safe, but still the risk in such a case must be kept in view and duly weighed. It is of course assumed that before putting these three questions it has been determined that asylum-treatment cannot do anything further to promote the patient's recovery.

Even when the selection of cases for trial in private dwellings is made with proper care some of the patients fail to do well. Just as a certain proportion of our recovered cases relapse after discharge from the asylum, so some of the boarded-out cases may relapse mentally, become unmanageable outside, and have to return to the asylum. Or they may develop characteristics which they did not show while in the asylum and which unfit them for domestic life. Sometimes the suitability for private care can be determined only by actual trial. Or the home selected may not be adapted for the particular case; and not infrequently a patient fails under one guardian and yet does very well under another. These are shortcomings which are to some extent unavoidable, but which can be minimized as we gain experience of the system of domestic care and the cases suited for it.

But the great proportion of boarded-out cases do very well. Sometimes the change in surroundings and mode of life entailed in the removal from the asylum acts as a mental tonic, just as a change of asylum may do, and the patient who seemed drifting into mild but confirmed dementia gets the fillip that sets him forward again on the way to improved mental power. A few cases improve so much as to become self-supporting and to be claimed as recoveries. In a large

number the change is beneficial to the bodily health. Even when no special alteration occurs in the mental or bodily state, the patients lead a more natural life than in the asylum, have more varied and more personal interests in their daily routine, and are usually more contented. Instances of these results might easily be quoted in considerable number, but I shall refer here to only two cases. One patient had been in an asylum for a number of years, was enfeebled in mind, quiet, and easily managed, but spoke little and showed no individuality; fitting into the routine ways of the institution, he was, in fact, lost in the crowd, and had no stimulus to exert himself. The change to a private dwelling roused him up; the new life made more calls on him ; his mental power was drawn out; he began to speak readily and brightly, and could be trusted with simple work, and his individuality and usefulness were increased in many ways. The other case was one of congenital imbecility. He had lived at home for many years until an attack of mania, with delusions of suspicion and refusal of food, came on, and for this it was necessary to place him in an asylum. The maniacal symptoms passed off after a time, and he was left again in his old condition of chronic weak-mindedness. Though not a grumbler, he was always anxious to be discharged from the asylum and get some work to do. His father was now dead, and he had no home of his own to go to, but a place was found for him with a stranger; and here he still lives, making himself useful in the work of the house and garden, and quite contented and happy in his own way.

6. *Lastly, what proportion of our cases can be provided for in this way?*—This is an important question, for if all the machinery of boarding-out were to provide for only a very small percentage of our patients, it might not be worth the trouble involved. At the same time it is a question which it is rather difficult to answer in exact terms. Of the total number of registered pauper insane in Scotland, the proportion in private dwellings is 22·8 per cent.; and the proportion is very different in different districts, varying from 53·9 per cent. in Shetland to 8·4 per cent. in Nairn. Much depends on the views held by the persons responsible for the charge of the insane in the district, on other special circumstances, such as the facility of getting asylum-treatment or the pressure on the asylum-accommodation, and on the energy with which the boarding-out system is pushed. Still we have evidence to show that a very considerable proportion of our insane can be provided for in this way. In Fife, when

we exclude the registered pauper lunatics who have never been in the asylum, and take only those for whom asylum-treatment has been required for a longer or shorter time, the number boarded-out from the asylum during the last six years is 68. Some of these afterwards returned to the asylum, but 55 still remain out. This is exclusive of cases where the proposal to board-out led to the relatives assuming again the care of the patient and taking his name off the parochial roll. It represents, in fact, almost entirely a class of patients who had no near relatives able or willing to take interest in providing for them, and who would, without question, have remained in the asylum if steps had not been taken to urge the inspectors of poor to have them boarded-out. If these cases had not been provided for in this way, the number of patients now in the Fife Asylum would have been larger than it actually is by nearly 15 per cent. Experience of a similar kind, and sometimes on a still larger scale, has been obtained in other districts in Scotland; and there can now be no question that boarding-out is capable of relieving to a very considerable extent the pressure on asylum-accommodation. Let me give some statistics from another point of view. The authorities of the city parish of Edinburgh have long recognized the value of boarding-out, and in addition to having accommodation for their patients in the Royal Edinburgh Asylum and in the lunatic wards of their poor-house, they have, for a number of years past, regularly and systematically provided for some of their cases by boarding-out. One of the assistant-inspectors of poor devotes a large part of his time to supervising the boarding-out, to finding suitable guardians, and to seeing that the patients are efficiently and properly cared for. The parish is not exceptionally well situated for boarding-out. It draws its cases entirely from an urban population in the centre of Edinburgh, and as patients cannot be suitably boarded in such a locality it has been necessary to find guardians at a considerable distance from the parish itself. Many of the patients are boarded in different villages in Fife. In June of this year the total number of lunatics on the parish registers was 260. Of these 109 (or 42 per cent.) were in the Royal Edinburgh Asylum or in special institutions for imbeciles, 78 (or 30 per cent.) were in the lunatic wards of the poor-house, and 73 (or 28 per cent.) were boarded in private dwellings. These proportions are almost identical with what they were in 1883, showing that the present state of matters is not exceptional, but can be steadily kept up. With such a record of

actual accomplishment before us, we are, I think, not overshooting the mark if we conclude that it is possible to provide for about 28 per cent. of our pauper insane by boarding-out.

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*On the Pathology of Delusional Insanity (Monomania).** By JOSEPH WIGLESWORTH, M.D.Lond., M.R.C.P. Lond., Rainhill Asylum.

Delusional insanity or monomania has long been looked upon as one of the chief forms or types of insanity, and it is so described in the leading works on the subject. It is doubtful, however, whether it would be considered by all to be a pathological entity apart from other forms of insanity; indeed, many consider it as simply a variety of mania, and in the returns to the Commissioners of Lunacy mania and monomania are classified under one head. So far, however, from these two affections being allied, I venture to consider them as fundamentally distinct, and having each a pathology of its own. To put the matter tersely, I would say that *mania begins from the top, monomania from the bottom.* This proposition, doubtless, requires some explanation. I have elsewhere † given reasons for my belief that mania is an affection of the highest controlling and co-ordinating plexuses of the brain; that what indeed we know as mania is the manifestation of activity on the part of certain lower centres (the larger portion) of the brain, this over-activity being permitted by under-activity, or abeyance of function, on the part of the highest centres (or smaller portion) of the brain. This is what I mean by insanity commencing from the top.

Mania furnishes us with one of the best examples of dissolution of the nervous system. Probably there are few cases of this affection in which recovery is absolute—without some change, however slight, being impressed upon the highest nervous centres of all. And as relapses occur, how often do we not witness the gradual progress to dementia, each attack leaving the patient more fatuous than before, the associated plexuses of cells and fibres perishing, as it were, in successive strata from above downwards.

But on the part of the affection known as monomania or

* Read at Psychology Section of British Medical Association Meeting at Glasgow, August 8th, 1888.

† "Journal of Mental Science," January, 1884.

delusional insanity, I venture to bespeak an altogether different origin and course; to suggest, indeed, that its progress is not from above downwards, but from below upwards—that it is primarily not an affection of the higher centres, but of the lower.

What lower centres? I should include under this term those regions of the cerebral cortex which constitute the primary perceptive centres—those cortical areæ to wit, which form the end-stations of the afferent fibres from the organs of sense, together with the nerve-nuclei and ganglia at the base of the brain, especially the optic thalamus; possibly also nerve-nuclei in the spinal cord itself. To these must be added (although it would not be correct to include them under the head of "centres") the peripheral nerves themselves, and the organs of sense from which they arise.

It may reasonably be objected to such a catalogue that it is too diffuse, and that the pathology of the disease would gain nothing even if such an extended area for its inception were to be recognized. But without going into minutiæ (for which, indeed, the time is not yet ripe), it will be evident that we are dealing here with the nervous structures which provide the raw material of intellect and present it in its simplest form—that the highest members of the series do not go beyond the presentative centres. And this, indeed, is the broad contrast which I wish to draw—between the structures which deal with the elaboration of intellect, and those in which intellect is already elaborated; the former being affected in monomania, and the latter in mania.

All this is, I fear, highly speculative, and the facts which I shall bring forward in support of the theory will not be considered to furnish sufficient proof of these assumptions; nor, indeed, will they do so. The utmost that can be said is that they constitute the preliminary induction, on which the deduction above stated is formulated; this must stand or fall, according as it agrees or not with the results of future observation.

It would be very unnecessary for me to draw a clinical picture of the affection known as delusional insanity, which is so well known to us all; needless also is it to say that the mere presence of delusions does not bring a case under this category. Suffice it if I enumerate what must be looked upon as the three leading characteristics of the disease, which stand prominently out amidst its numerous forms

and varieties. These are:—(1) The existence of well-marked hallucinations (and illusions) of the special senses. (2) The presence of delusions which tend to remain substantially the same for long periods of time. (3) The retention, at any rate at first, and to a considerable extent subsequently, of the intellectual faculties (including the memory).

I think I shall be correct in saying that no true typical example of monomania is met with in which hallucinations of one or more of the special senses do not occur; and usually these form a very prominent feature of the disease. We do not yet know sufficient about the development of hallucinations to be enabled to say definitely that this or that locality of the nervous system is affected in any given case; but we are not altogether without guidance in the matter. Thus crude sensations or hallucinations can undoubtedly be induced by irritating the organs of sense themselves or the nerves proceeding from them; and it is a fair inference that disease in these parts will give rise to abnormal subjective sensations; indeed, we know that this not unfrequently occurs.

The position which the optic thalamus occupies as an intermediate station between the sense-organs and the cerebral cortex marks it out as a ganglion of disease, which would be especially liable to be attended with sensory derangements, and we know that some writers have endeavoured to localize hallucinations in this organ.

But for the hallucinations to be at all elaborate in character it is necessary to invoke the aid of the cortical centres, and though we are not at present able to say that disease of such a part of the cortex may be attended with hallucinations, and of such another part not so, it seems a fair assumption that the primary perceptive centres from their direct structural association with the organs of sense would be especially liable, when irritated in any way, to respond pathologically in a manner corresponding to their physiological excitation.

Of equal importance with the universality of the hallucinations is their relation to the systematized delusions. And first as to their time relation. Shall I not be correct in saying that in this affection the hallucination invariably precedes the delusion? Such, at least, is my experience; but if this be a fact it is one of great significance, and its significance is heightened by the manner in which we can

very often trace the dependence of the delusion upon the hallucination. How often, indeed, do we not witness the direct development of delusions out of hallucinations, *e.g.*, the construction of delusions of conspiracies and persecutions out of hallucinations of the tactile sense, and of hearing, etc., etc.? When the relation between cause and effect can be so clearly traced in some cases, are we justified in extending the induction to cases in which the relation is not so obviously manifest? But if this dependence of the delusion upon the hallucination be a fact—if it can be shown that the latter always precedes the former—clearly the delusion must be a secondary thing, and the primary change, whatever it be, must be in the nervous structures, derangement of which is capable of giving rise to hallucinations. The parallel here presented with the physiological process of mental development is obvious. The senses, of course, supply the raw material of intelligence, all our knowledge of the external world being originally obtained through these avenues. If the process proceeds physiologically, normal mention is the result; but out of false sensations and perceptions, erroneous cognitions are inevitably produced.

The last of the three leading diagnostic marks of delusional insanity which I enumerated—the retention of the reasoning faculties—presents us with a fact of much significance from the negative side. We must all have been struck with the shrewdness and argumentative power presented by many monomaniacs, especially in the earlier stages of their disorder; the memory, as we know, is often perfectly retained, and we might converse with a patient for a long time without suspecting that there was anything wrong with him. But does not this fact in itself show that at this stage of the case there is no disease of the highest centres of mind? How, indeed, can there be when mental operations are proceeding normally?

Contrast with this the disorder of thought that is presented to us in even the mildest cases of mania.

From an examination, then, of the mental symptoms presented to us by a typical case of the affection known as delusional insanity, we have derived evidence in favour of the mode of origin of this disease, set forth at the outset of this paper. Are there any known facts of pathology in harmony therewith?

That disease of the sense-organs is prone to give rise to a delusional state, is a fact with which we are familiar. I

may refer in this connection to one or two interesting cases recorded by Dr. Savage* of syphilitic optic neuritis, in which marked delusions of suspicion became developed; the relation of cause and effect between the two being rendered very evident by the effect of specific treatment in curing the optic troubles, and at the same time causing the disappearance of the mental aberration.

But the most typical examples at present forthcoming of delusional insanity dependent upon changes in progress in the nerves themselves, are derived from certain cases of locomotor ataxy. It has long been known that some cases of this disease become complicated in course of time with insane manifestations.

Not unfrequently, indeed, we find general paralysis supervening, with characteristic mental traits; but to such cases I do not now refer. The cases which have interest for us in the present connection are those in which a true delirium of persecution becomes developed. We are presented at times in association with this disease, with typical examples of delusional insanity, the affection taking the form of the monomania of suspicion and persecution. And the importance of such cases lies in the fact that the delusions therein manifested can be demonstrated to have developed out of the changes in progress in the nerves and organs of sense. We can trace, in fine, the gradual genesis of the delusion out of the abnormal information furnished by the peripheral nervous system.

The abnormalities of the tactile sense in this disease, with which we are so familiar, give rise to various kinds of perversion of touch; the patients, for instance, cannot feel properly the ground on which they walk—they think they are treading on cotton wool, etc. The perversions of this sense are, however, usually corrected by the sense of sight, and no delusions are developed.

But very frequently, as we know, the patients become blind from atrophy of the optic nerves, and are no longer able to correct their false tactile impressions by the healthy activity of the sense of sight, which plays so large a part in furnishing us with information concerning the external world. When this is the case the patient is very apt to take his false impressions for real ones, and delusions are henceforth developed. So much the more likely are these to

* "Syphilis and its Relation to Insanity." "American Journal of Insanity," Jan. 1, 1888.

arise if the acoustic nerve becomes involved, and abnormal sensations are initiated in this region also, the patient eventually becoming deaf in addition to his other sensory troubles. When this occurs delusions must become developed almost as a matter of course, for the main avenues to knowledge being sealed, morbid impressions can no longer be corrected by healthy ones.

That under these circumstances the sensory pains should be mistaken for the tortures inflicted by supposed enemies is not surprising, nor is it to be wondered at that delusions of suspicion and persecution should become developed. That this is the actual course has been pointed out by Dr. Rougier,* who has written an able essay on the subject of the delirium of persecution in tabetic patients.

I instance these cases as showing that a mental state practically identical with monomania may be produced by physical changes in progress in the peripheral nervous system. This does not prove that the more ordinary examples of this affection are thus produced, but it suggests that, at least in some cases, they may have a similar origin and course. For we must bear in mind that it is not necessary for lesions to be of the coarse nature of sclerosis in order to produce an effect; changes far more delicate might be equally efficacious, although less easy to demonstrate. Clearly also disease of those nerves which take the leading part in furnishing the raw material of intelligence, would be more likely to be followed by mental derangements, than affection of those nerves which are less immediately connected therewith. Hence the paramount importance of the senses of sight and hearing in this regard. Hence, also, perhaps, the comparative infrequency with which mental derangements become superadded in the numerous forms of peripheral neuritis with which we are learning to be familiar. This affection has been chiefly studied in connection with the mixed spinal nerves, those more especially connected with the cerebrum being supposed to be intact, and hence being capable of correcting morbid impressions supplied from other sources.

But even in these cases mental derangements are not unfrequently developed. Thus in so-called "alcoholic paralysis," now known to be due to a peripheral neuritis, a peculiar form of delirium is not unfrequently superadded to the sensory and motor troubles. In Raynaud's disease

* "Essai sur la Lypémanie, et le Délire de Persecution chez les tabétiques."

also, in which changes in the peripheral nerves have been recorded by myself and others, mental derangements are not altogether rare. But if the spinal nerves are as obnoxious to disease as modern neurology is beginning to discover, it is not likely that the more highly specialized cerebral nerves escape as much as we might think from the negative evidence at our disposal.

Affections of the optic nerve have, of course, received abundant study, but our knowledge of the morbid conditions of the other nerves is very much less complete. I submit that a chronic inflammation or degeneration of the cerebral nerves—a peripheral neuritis in fact arising in this area—would be capable of giving rise to a typical example of delusional insanity or monomania.

It may be remembered, however, that at the outset of this paper I did not limit the starting point of monomania to the peripheral nervous system, but expressly enumerated certain lower cerebral centres, as the highest term of a series, of which the lowest term was to be found in the organs of sense themselves. I suggested that these lower centres were to be sought in the primary perceptive cortical centres, those forming the end stations of the nerve fibres from the special senses and hence immediately connected with the organs of sense themselves.

Higher than this, at the outset, I do not think we could go without postulating a greater degree of primary mental change than is to be met with in monomania as we define it.

That the degeneration (or whatever the nervous change may be) once started should have a tendency to spread further, and involve more and more of the representative and re-representative centres, is what we might expect from the known tendency of the mental symptoms to undergo aggravation. Possibly, indeed, the rapidity of evolution of the malady depends in some degree upon the position of the primary lesion. But we know that though there is a tendency in many cases to progression, other cases often remain for many years substantially unchanged.

This is readily explicable if we suppose that certain nerves or nervous centres, injured by some toxic agent such as alcohol, have recovered to a certain point but not completely; the withdrawal of the toxic agent might stay the further progress of the disease, but the damaged nerves or nervous centres might henceforth be incapable of transmitting, or initiating, other than abnormal stimuli.

We may very briefly sum up the foregoing considerations as follows:—

In the affection known as monomania or delusional insanity, the hallucinations (or illusions) are primary and the delusions secondary, this pathological formation of ideas proceeding on the same lines as the normal physiological process. This seems to indicate that the starting point of the disease must be in those nervous structures, derangement of which is capable of giving rise to simple uncomplicated hallucinations, to wit, the peripheral nervous system and lower cerebral centres. The complete preservation of the reasoning faculties also negatives the idea that the disease at the outset can have seized upon the highest centres of mind.

That disease of the peripheral nervous system is capable of producing a delusional insanity is shown by certain cases of locomotor ataxy, in which it is not permissible to doubt the relation of cause and effect. It does not seem an unfair inference that other cases, in which the relation between cause and effect is not so manifest, nevertheless may own substantially the same pathology.

The Sexual and Reproductive Functions, Normal and Perverted, in Relation to Insanity. I. Menstruation: its Commencement, Irregularities, and Cessation. II. The Sexual Instinct and its Abuse. III. Pregnancy, Parturition, etc. By Dr. CAMPBELL CLARK, District Asylum, Bothwell, Glasgow.

(*Read at Psychological Section of the British Medical Association in Glasgow, August, 1888.*)

In undertaking to introduce a discussion on this very large and important question, I am conscious of my inability to do it justice. No one can possibly cover the wide range of subjects comprised in it; and I am anxious rather to elicit the convictions of more experienced men than to obtrude my own crude and imperfect ideas. My purpose is, therefore, to state the case as briefly as possible, and to introduce questions for discussion in preference to merely ventilating my own ideas. In this way we may arrive at some common points of agreement and materially advance our knowledge of the subject. There can be no two opinions as to the advantage of bringing to a focus the collective

experience and conclusions of the various sections of our profession interested in this field of research, and the present opportunity is a particularly good one. The title of the discussion embraces a great deal, and yet does not strictly include topics which might be considered relevant, particularly therapeutics. My aim at the outset will be to invite your special attention to a few questions only, and in order to make the most of our time and concentrate the discussion as much as possible I propose to take each division separately. The subject, viewed as a whole, is so far-reaching and practical as to possess uncommon interest, for it links together medicine and psychological medicine, it gives an open field of discussion to general medicine, obstetrics, and psychology, and it views insanity on its less speculative side, because the more materialistic functions are brought out in strong relief, and sometimes even overshadow the characters of mental disease.

A very important point of discussion to begin with is the question of action and reaction in mental disease; and while it is now an ancient truism that body and mind act and react on each other, it would be well to bring out this question afresh and have it more fully cleared up. The discussion now in hand gives an excellent opportunity for working out the subject, and of all the bodily functions we may regard the sexual and reproductive as exercising the greatest influence on the brain and mind, and *vice-versâ*. This is no idle or useless matter, for we are still very much at variance as to what share bodily states have in the production of mental states, normal and abnormal; and while with some there is a disposition to insist on brain or mind as the starting point of disease, with others there is a tendency to refer mental changes to somatic conditions. It is our misfortune that we cannot fix on a sound code of causation, and it is not surprising that we should look for a safe groundwork in the multitude of bodily diseases which have a material realism in striking contrast to mental disease. This is one danger, and the other is that we may charge the brain too much, with a morbid bias, and discount too freely the influence of the lesions and disordered functions of bodily disease.

These considerations naturally lead up to the first part of our discussion, and bring us to the inquiry, What has menstruation to do with mental change and mental disease? Beginning with the period of puberty, we may regard it as

accepted that there is a mental evolution coincident with that of the menstrual function, and that each recurring epoch is attended with nervous and mental changes which vary with the individual, but are always more or less present. So far this reflex influence of menstruation is physiological; but when we have exaggeration or perversion of nervous and mental states the question comes to be, Is there anything in the menstrual function to account for these? That the evolution of this function exercises a more than usually disturbing influence on the nervous system at puberty cannot be denied; but the important point of discussion is, How far does retardation or obstructed development of the function explain the invasion of nervous or mental disease at this time, and what share of causation must we assign to hereditary brain-weakness—to over-pressure in education and various other acquired influences? In debating this question it will be necessary to keep in view a group of abnormalities which puberty specially brings into prominence. These are epilepsy, chorea, chlorosis, and abnormal sexual development. Of the two first I need not speak. Of chlorosis it is enough meanwhile to say that Trousseau regarded it as essentially a nervous disease, having origin usually at the period of puberty; and in his clinical lectures he gives a *résumé* of nervous and mental symptoms frequently appearing in this disease. Anæmia and menstrual irregularities he regarded as secondary and sequential, and it is possible that he under-estimated their importance. Be this as it may, we have to consider further that in chlorosis the vascular system is imperfectly developed, that the generative organs are often of infantile proportions or of immoderate size, and that not infrequently chlorosis is suddenly induced by chill or severe emotion, such as fright. Coming now to the fourth of the group, viz., abnormal sexual development, I introduce a subject comparatively new to me, but very important the more we are able to study it. In the wards of our asylums, if we take the trouble to observe and inquire, we shall find cases of insanity of puberty or early womanhood allied to chlorosis, and sometimes distinctly chlorotic. The former, which are not of the chlorotic order, give collectively a somewhat heterogeneous group, comprising, among others, the following varieties: (1) asymmetry of pelvic and mammary development, *e.g.*, a smaller left breast and left half of pelvis; (2) a uniformly small pelvis; (3) very frequently extreme flatness of anterior

contour of chest and smallness of mammæ even after the birth and suckling of a child. Lastly, I may remark that in cases of early insanity it is not uncommon to find a breadth of shoulder which dwarfs the pelvis, a large development of the bony system, and a masculine figure and carriage. To pursue this matter further brings up relative studies of embryology, and raises the question of heredity and the correlation of the development of the reproductive organs and the nervous system.

The next point of discussion that I wish to bring out is the relation of menstrual irregularities to mental disease, and in opening up this question I think it desirable to give it as wide a scope as possible. On the one hand we may have regard to these irregularities as factors in the production of mental disease, and on the other as effects or modifying agents in the course of the disease. The more important irregularities are three—amenorrhœa, dysmenorrhœa, and menorrhagia; and I have placed them in what will probably be regarded as the order of their importance. We may next take up the question, How far is amenorrhœa a cause and how far an effect of insanity? The history of our cases gives evidence of two kinds—(1) evidence of amenorrhœa for months before insanity appears, and (2) evidence of amenorrhœa only after insanity has appeared. In this connection the relation of amenorrhœa to phthisis may appropriately be considered, and the two taken together as factors in the production of the insanity of puberty or early womanhood. The frequency of dysmenorrhœa associated with insanity is difficult to determine. Its essential symptom of excessive pain is for obvious reasons an unknown quantity in many cases; but with all the evidence that is available it does not appear that dysmenorrhœa is so frequent as we find it in the experience of general medical practice. Menorrhagia is a condition prone to arise at the climacteric; but in younger cases I have been surprised to find it not at all infrequent. We come next to inquire, Are there special forms of insanity expressive of particular types of menstrual irregularity? At first sight it would appear not, so far as my experience goes; but I have not been able to sift and accurately analyse my cases, and it is just possible that a deeper insight might reveal distinguishable groups of menstrual habit possessing mental characters peculiar to themselves. So far I can only affirm that three groups of premonitory mental symptoms are distinguishable—(1) ex-

citement and irritability, (2) depression, (3) stupor—and that so far as I have looked into the matter they do not belong to special types of menstruation. The same may be said of the mental symptoms accompanying and following menstruation; but I repeat, so far as my work is concerned, the subject has not been fully investigated, and these statements are given with a qualification.

Lastly, we may with profit consider the important period of menstrual life known as the climacteric and its effect in the production of the various neuroses of that period. The streak of heredity is well-marked at puberty, and it is faint at the climacteric. Organic change and external influences must play a more important part here; and if so, we are brought into contact with a new kind of causation. What its principal elements are we would do well, if possible, to agree upon; and it is also desirable to have a free ventilation of opinion regarding the types of climacteric neuroses, including dipsomania, and also regarding prognosis. In concluding this division of my paper, permit me also to say that the effect of the climacteric on chronic cases of insanity is also worthy the attention of this meeting, and that all the information that can be collected on the subject, if well digested and arranged, would be not only of scientific value, but a useful help and guide to all asylum physicians. I am just now specially interested in a case of recurrent mania insane for fourteen years, who has now passed the climacteric and has been well for nine months instead of a month or six weeks as formerly. During these nine months she has been working away from the wards, and undoubtedly this has contributed to her freedom from excitement.

The Sexual Instinct and its Abuse.—As a special study, the sexual instinct has received little attention, and without a better understanding of its physiology we are at a loss to know what is normal and what is clearly abnormal. The catamenial period and interval have in the female a definite rhythm; but the question follows: Is there a rise and fall of sexual nisus at periods apart from the catamenial, and is their rhythm regular or irregular? In the male there can be no doubt that the sexual nisus is irregular in the times of its appearance, and that its intensity is accentuated at longer periods. Temperature charts may be useful in the case of healthy men, and I have made some observations which show that the normal male temperature varies considerably within normal limits, and that, so far as I have been able to

observe, there is one marked and prolonged rise every month or five weeks, averaging three days, and occasional lesser rises appearing irregularly and of shorter duration. These observations were only made in three cases, and I have no proof that they refer to the sexual appetite. This, however, I am able to say, that the act of masturbation is attended with a prompt rise of temperature, varying from 1 to 2 degrees in the first half-hour, and falling to 60 per cent. thereof in the second half-hour. I have also ascertained that menstruation is preceded by a depression of temperature, and thereafter a distinct rise occurs, lasting till the catamenia cease. Apart from mental influences, there are conditions which must influence the sexual instinct, and diet and drink take special prominence among these. There appears to be some ground for the popular idea that excess of flesh meat diet excites lust; but some members of our profession are strongly of opinion that this is a fallacy. For those who are too susceptible to the sexual craving, milk diet is prescribed; and I have been curious to investigate this question of flesh *versus* milk, and subjected three male masturbators for four and a half months to a series of dietetic experiments consisting of a dinner of either (1) meat; (2) fish; (3) Irish stew; or (4) rice, milk, and fruit tart. After the first three diets these patients frequently masturbated, but in no case after rice, milk, and fruit tart, which had been given twenty-three times. Masturbation in the female, so far as I have been able to ascertain, is not so common; but as my practice is confined to pauper patients—and not a few of these are from the mining class where early marriages prevail, the *morale* is low, and sexual gratification is less restrained—it may be that my experience is below that of those who meet with cases in private asylums, or in general practice. This also must be considered, and it is a point which Trousseau lays stress on, that the sexual instinct is feebler in women than in men, and that in chlorosis, at least, it is diminished in proportion as the disease has progressed. We have next to pass in review the causes of self-abuse, and regarding these it is probable that some diversity of opinion prevails. It is, for example, a moot point whether self-abuse can be self-learned; but I see no reason whatever why it should not. Few men have not known of it in childhood, and the idea is then implanted, though the habit may not be practised, and there is nothing to prevent the habit appearing when a man's moral sense is

perverted by insanity. Lastly, self-abuse may be induced in the adult, and this by local irritations, especially in females. This, though specially noticeable in puerperal insanity, is found in younger females of the insane diathesis. A further point of discussion, which is not new, but still of practical interest, is the relation which sexual abuse bears to insanity. I am sure that the experience of many here will bear me out when I say that each man is a law unto himself in this respect, and that some can indulge with impunity to an extent that has wrecked some fine young brains and brought them to asylums. The degree of nerve-resistance is the item to be here taken into account, and this introduces again the question of heredity.

Lastly, under this heading I desire to have an expression of opinion as to whether there is such a thing as true masturbatic insanity, and, if so, whether it is of one type or many. There was a time when insanity of masturbation was described as having very distinct mental characters, and certainly these characters were to be found in men who practised self-abuse; but while there is little difficulty in diagnosing the masturbator, it is no easy matter to say what the symptoms of insanity of masturbation are. I know of one rare type, appearing in adolescents, where masturbation has temporarily become impossible, and where progressive atrophy goes on for a time, the patient usually recovering physically, but not mentally. In four such cases a low type of inflammation over one knee-cap supervened; in one case a gangrenous slough shelled out from it, and the patient is now physically well, and has resumed his habit of self-abuse. One died at the age of 24, having been insane five years. The cause of death was general tuberculosis, and he lost over three stone weight in fifteen months, his average weight in the earlier months of asylum residence being 9st. 7lb., a very small weight for a man of six feet. He suffered from knee-cap inflammation before the advent of tuberculosis, and three weeks before death quite a crop of small ulcers with red edges affected the skin over the right shoulder, without any pressure or external irritation to account for them. In a lesser degree the same was observed over the joints of the toes. It may interest you to know the annular measurements of various parts taken post-mortem. The calf of leg $8\frac{1}{4}$ inches, thigh $9\frac{3}{4}$ inches, circumference of chest in the plain of the nipples 29 inches, waist 21 inches; lower arm and upper arm at their thickest parts 6 and $6\frac{1}{2}$ inches

respectively. I will not trouble you with a detailed statement of the post-mortem appearances, suffice it to say that softening was more marked in the cord than in the brain, and in the cerebellum more than in the cerebrum, that tubercular deposits were found in the lungs, liver, and intestines, and that the heart weighed eight ounces. Masturbation plays a part of varying intensity in the different types of insanity with which its name is associated. In one form it is of secondary and in another of primary significance. Before concluding the subject I have a word to say on the mental effects of masturbation, but will confine myself to three points only—violence, excitement, escapes. If we carefully observe masturbation it will be found that usually, but not always, some form of excitement follows the act. It may take the form of immediate sudden blind fury; whether in obedience to hallucinations or pure impulse, it is not always easy to say. It may take the form of excitement, a state of unrest, rhythmic movements of apparently automatic character, or, lastly, the act of masturbation may and does frequently lead up to attempts to escape, whether from a feeling of restraint and oppression, and desire for freedom, or as a mere act of motor excitement, I am unable to say. If we have time to consider the subject of treatment a conference over this really urgent question would be of immense advantage, and we might consider in this connection at some length the best dietetic and medicinal methods.

Pregnancy, Parturition, the Puerperal State, and Lactation. —We have here subjects enough to occupy the whole session of the Psychological Section, and therefore an opportunity like the present should be taken advantage of to accumulate evidence only of the rarer kinds, so as to admit of sound deductions. Of topics which furnish scanty information in the individual experience of physicians I may state the following:—(1) the nervous and mental peculiarities of pregnancy; (2) the *mania transitoria* of labour; (3) puerperal eclampsia, associated with insanity; (4) the premonitory symptoms of puerperal insanity; and as a subject of discussion I may add to these (5) the limit to be allowed for the appearance of what should be known as true puerperal insanity, and (6) its differentiation from insanity of lactation. The discussion may thus be unduly narrowed, and I merely indicate these subjects as forming at least a nucleus to enlarge from. We are still far from possessing an adequate conception of the psychology of pregnancy. Insanity at this

time is extremely rare; and lesser disturbances of nervous and mental function are so common as to be counted physiological. For these reasons the evidence on record is insufficient to construct a consistent chapter, and I hope that to-day some fresh light may be thrown on the subject. Melancholia, with intensity of suicidal impulse and moral insanity, are the types recorded. In seven years I had nine cases, of which I throw out two as being merely incidents of chronic insanity. Of the seven left three were cases of melancholia, but the suicidal impulse was not prominent, though in one instance, when labour was approaching, violence to the abdomen in the hope of killing the child became an overmastering impulse. This woman, married and deserted, might be regarded as a subject of melancholia and moral insanity combined, for her moral sense was decidedly blunted. She did not recover. One was a long case, which did not recover till 18 months after the birth of her child, which was illegitimate. The third case was that of a young girl married to an army deserter under an assumed name. She recovered in the ninth month of pregnancy, having been insane over four months. These cases were all obstinately idle and suspicious, rude, quarrelsome, sour, and unsociable, especially the last two, and they seemed to brood and think to themselves in a persistent, morbid way. The four remaining cases were maniacal, one only exhibiting decided moral perversion, and the others being respectively classed as acute mania, acute hysterical mania, and epileptic mania. Of these three the first was discharged recovered in a month, the second died in a fortnight from heart-disease, and the third had epileptic seizures at long intervals after the age of 19 till the second pregnancy supervened, when the fits became frequent and severe, and she was admitted, after a few days of intense excitement, in a state of profound coma, with hyperpyrexia, and appeared to be in a very critical state indeed. By the exhibition of croton oil, which had to be repeated, and the frequent use of enemata, the bowels were relieved by a copious discharge, which was estimated at 60 ounces. The coma lifted, she brightened up, and in a few days the child came away at very short notice, owing to an open perineum from old rupture. After a few days more of mental crisis, in which her whole nervous system seemed on the alert, and during which she for some hours disowned her child, she recovered under the use of morphia suppositories, in small doses, repeated according to the indications, and was discharged,

strong and well, 33 days after admission. Of the *mania transitoria* of labour I have occasionally seen cases, especially in outside practice. It comes and goes so quickly as to be scarcely real, but the patient is quite alive to it herself. It seems to partake of the character of frenzy, and for the moment the patient is quite beside herself. In asylum practice I have known it much more prolonged. The case of melancholia, with illegitimacy, was a remarkable example of this. She woke up as labour commenced with a loud scream, and was wild with terror; she believed that she was to be killed, and locked her thighs, as labour advanced, in a fierce convulsion. The delivery of that woman was no small matter; but after labour the old state returned, though to a less extreme of melancholy and indifference. The next important question is the relation of puerperal eclampsia with puerperal insanity. My own experience in this respect is *nil;* but it is possible that others may have something to say on the subject. It is strange that a combination of albuminuria and nerve-discharge, occurring at this period, should not interlace more frequently with mental disease; and if any data are forthcoming they will be particularly welcome. The premonitory signs of puerperal insanity is a theme on which we may be able to enlarge more freely. To know them and understand their relative significance is to be placed in an exceptionally good position for preventing the precipitation of this disease. Certain of these prodromata have to be regarded as signifying the imminence of some morbid change, but not specifying its kind, and of these the rise of pulse and temperature, and the disappearance of the lochia, are examples. Sleeplessness enables us to differentiate more clearly, but even this is not an absolute indication of approaching mental disturbance; and the most that can be said of chills as a diagnostic sign is that they forewarn us of the potentiality of mental disease; they may indicate metastatic deposits, inflammation, or immediate insanity, and if the former there is still to be reckoned with the secondary, risk of puerperal insanity. Of other premonitory signs, hyperæsthesia, extreme excitability of the special senses, and particularly intolerance of the slightest noise, are urgent indications. Lastly, bad dreams, sometimes succeeded by a chill, is a grave symptom, and often ushers in the attack, while a craving for alcohol may be regarded as a preliminary symptom of the disease. It is likely that many curious premonitory symptoms are still unknown to most of

us, and I hope to hear some interesting experienecs detailed by others. We come now to revive an old question—When is insanity, occurring after childbirth, no longer to be regarded as puerperal, and how soon may we classify a case as insanity of lactation? If six weeks is to be the limit for the appearance of puerperal insanity, is a case occurring in the seventh week to be described as insanity of lactation? Our statistics are vitiated as long as there is no common bond of agreement on these points. According to Dr. Clouston, puerperal insanity is technically limited to six weeks after confinement. Drs. Bucknill and Hack Tuke and Dr. Batty Tuke fix it at a month, and others at three months. At the same time, Dr. Batty Tuke allows two months for debateable cases which in their characters may conform to the puerperal or lactational types. In Dr. Clouston's cases 17 out of 23 lactation patients became insane inside the first six months, while 51 per cent. of Dr. Batty Tuke's occurred after the ninth month of nursing. My experience coincides with the latter; but I do not call a case "insanity of lactation" till three months have elapsed from parturition. We must distinguish between cases where the exhausting influence of lactation is the preponderating cause, and those where the irritation of the puerperal period is still maintained; and to do this I would propose that a post-puerperal period of two or three months should be allowed for mixed or uncertain cases. Where for a series of years there is one unbroken chain of pregnancy, puerperium, and lactation, without any recuperative pause, the period which precipitates an attack of insanity is merely the last straw, and the disease cannot be strictly regarded as partaking of any special type. I will now conclude by merely enumerating certain features that have struck me as being specially associated with insanity of lactation. These are (1) frequent bronchial catarrh of slight character; (2) frequency of rheumatic pains and swelling of joints; (3) an affectation of shyness, especially in the doctor's presence; (4) the persistent character of the delusions, violence, and abusiveness, and intensity of likes and dislikes. One negative point seems to be interesting, viz., the absence of mammary abscess. I hope that however meagre my statements are they may suggest further ideas on the subject, and bring out a clearer conception of these important types of insanity that may enable us more successfully still to combat what we nevertheless have good reason to regard as diseases with a good prognosis.

Mental Disorders Associated with Marriage Engagements.
By Geo. H. Savage, M.D., F.R.C.P., Senior Physician Bethlem Royal Hospital.

The frequency with which I am consulted about both men and women in whom an engagement of marriage has been associated with marked mental disorder, has induced me to bring the subject before this meeting of the Psychological Branch of the British Medical Association, especially as the subject naturally falls into a place in the larger subject suggested by Dr. A. Campbell Clark's papers on the perversions of the sexual and reproductive functions.

First, then, the disorders to which I refer are common; next they have a sufficient likeness to one another to deserve to be grouped together. Such disorders are very variable *in degree.* They are in most cases but an exaggeration of a perfectly natural state of the feelings. The slighter forms of this disorder occur in otherwise healthy persons, so that I have almost come to look upon this moral trouble as one through which the majority pass before marriage. That there should be this preliminary disorder is natural and easily understood, for the exercise of the sexual function under the restrictions of civilized life necessitates great restraints at the very time when the feelings are most stimulated by soft contacts and other blandishments.

Another cause of the disorder is the centering of the feelings and emotions on the reproductive organs, this being done unconsciously, to a great extent, or rather I would say there is an unconscious centering due to the mere forms of love-making which in their associated action stimulate even the most innocent to some extent; thus in a pure-minded girl the loving touches of the *fiancé* produce sensations new and disturbing, and I have seen such feelings give rise to ideas of moral weakness or even of immorality. I have known such a girl take a dislike to her future husband because his attentions produced voluptuous feelings, which she considered unworthy of her and improper for him to cause. She believed, in fact, that he meant to ruin her by such actions stimulating her lower nature.

In the man, too, though his purity is rare, yet there may have been continence, at least, during his wooing, and at such period he may thus be greatly excited without any

gratification, and the result may be on the one hand seminal emissions, leading to dread of impotence, or on the other a form of emotional disorder allied to the so-called hysteria of women. I am in the habit of comparing this state with dyspepsia, and I speak of "moral dyspepsia."

In very many cases there is an accumulation of feeling of longing and unsatisfied desire, which is enough to produce this dyspepsia of the feelings and emotions. There is a loading with no relief. So far, then, I have pointed out that there is a normal disturbance which may be transient, or may pass on to further emotional disorder; and *this* may be *all* or there may be a further growth of the morbid process, so that the higher intellectual faculties are deranged as well as the feelings.

I wish now more fully to trace the nature of these disorders and study the manner of their development in the concrete.

This morbid state is common in young men. It may occur in those who are habitual masturbators, as well as in those who are continent in every way. Some writers believe that this disorder is part of the insanity of masturbation, but I am sure I have seen cases in which there was innocence and continence.

My experience is that it is most common in men who have refrained from sexual indulgence, and that is all I can affirm.

It is more frequent, like most of the slighter neuroses, in members of nervous families. It is common, too, in persons who have had previous attacks of nervous disorder, such as hysteria. I have never met with it in widows or widowers.

It may occur in very young people, but is more common, I think, in persons of both sexes of 30 and upwards.

It may occur several times, under similar circumstances, in the same person; thus I have known it to occur in a young man on his first engagement, then pass off when this was broken off, to recur, in a slighter degree, when he heard of the marriage of his first love, to occur again when he became engaged to a second lady. The onset of the symptoms may be sudden or very gradual. It may be, as I said just now, only emotional disorder, or it may pass into serious mental disorder with delusions, etc. As a rule, the symptoms are of a melancholic type. There is exaggerated self-consciousness, and there may be suicidal tendencies.

The common history of the cases is as follows:—

A young man who has borne a blameless reputation be-

comes engaged to be married to a girl who is in every way a suitable match, and for a time true love's course seems to run smoothly enough. Then it is noticed by friends that he is irritable, and, though he performs the social duties of an engaged man, there is a want of life about him, and he is always tired and easily fagged. He then becomes more moody, dull, and emotional, complaining of weight or pain in his head, with inability to apply himself. Then, or even earlier, dreaming sleep or miserable sleeplessness are present, so that the night is dreaded, not only from the sleeplessness, but because of the terrible night thoughts.

At this period almost always there is an appeal to some sedative or other, chloral nowadays being the most popular. Sleep thus produced rarely does any good, though it enables some to go on ruining themselves in power by drawing on their nervous capital. Dyspepsia, with constipation, are almost always present, anæmia following rapidly. The complexion is sallow, and there are dark rings round the eyes. Change of scene for a time may relieve, but return to the old surroundings with its old relations is followed by a relapse.

It is under these circumstances that the young man breaks off his engagement, often in a most heartless way. He seems to have done everything to make a return to the old conditions impossible, and it is thus that these cases are brought by the outraged friends before Courts of Law.

The breach may relieve, or it may drive the patient into a still more hopeless state, during which suicide may be attempted. The chief symptoms are loss of affection, sleeplessness with inability to settle down to work. In some this may lead to emotional outbursts or to hysterical attacks, in which volleys of blasphemy or of bad language occur.

There may, on the other hand, be a feeling that this is due to conduct of the lady, and jealousy may arise, leading to danger of homicide. Though the dropping of the engagement may not produce any marked good at the time, yet the best treatment most certainly is to advise it to be set aside, for a time at least. Just as dyspepsia may be relieved or cured by starvation for a time, so may this moral disorder be improved or cured by relief from the exciting cause. To follow illicit love is not to be advised, not only from the moral, but from the medical standpoint. A full meal only hides the indigestion for a time, leading to more

pain than ever after, and sexual indulgence stimulates a weak and disordered function, and leads to feelings of depression, both moral and physical.

Separation—change of scene—for at least three months, and generally six months, is the best form of treatment. I know no mental cases which benefit so much from sea voyages as these.

If the engagement is renewed, after the recovery, the period between that and the marriage should be short.

Marriage should never be advised as a cure: for there is great risk of impotence or of feeling of strong antipathy arising, which may never be conquered in after life. The danger of suicidal attempts, associated with the feeling of impotence, must never be lost sight of.

In some men I have seen depression of this suicidal kind follow the change or development of pure love in place of mere sexual lust. Thus the free liver having lost the Sensuous in the Ideal may feel loss of power, and, dreading impotence, become worried, and perhaps end his life, fearing that he is worn out.

The disorder as seen in women is similar, but has the feminine aspect. Thus a girl becomes engaged to be married, and submitting to caresses feels disturbed in feeling, thinks her emotions are unchaste, and are in direct opposition to her ideal love dream, which is apart from all organic love. She begins to fear that this is not true love, but only a lower feeling unworthy of the object to whom she is attached. From this state proceeds one of self analysis with worry and sleeplessness. After a variable time of struggle the engagement is broken off with a very lame excuse, so lame, in fact, that the lover will not believe that the mere want of "proper affection" is the true excuse, but is convinced that there is some other more tangible cause either in a counter attraction or some rumour against him. With the breach of the engagement there may in the woman as with the man be some temporary relief which for a time convinces her that there was truth in her idea of her own incapability for love. With the bodily disorder there may be menstrual disorder too—either metrorrhagia or amenorrhœa. Other bodily ailments are dyspepsia, constipation, anæmia, and chlorosis.

From the above a true state of melancholia may arise with ideas that her past conduct has caused her to be a suspect, or that she has driven her lover to despair, and that nothing

will prevent his ruin. With these feelings there may be suicidal tendencies, especially if the melancholia pass into a religious phase. Such cases as the above are frequently treated as if they were hysterical, that is, as if the sufferers had only to exert their own will and they would recover.

In other cases the one cure for hysteria has been supposed to be marriage. I have had the experience of several such cases. I give one in which the friends of the woman thus looked upon the disorder, and first suggested that the man should avoid seeing his future bride for some weeks, though the engagement was to be maintained and the contract completed. Then the marriage was to be completed as far as the religious service was concerned, but even for this the use of stimulants was necessary before the bride could be got to church. The pair left for their honeymoon, but the woman declined to allow any approach by her husband—in fact, would lie only outside the bed with all her clothes on. Nothing would in any way convince her of her duty, and the next day she was sent home with her mother. The symptoms became more markedly melancholic, and in the end the husband applied for a declaration of nullity of marriage, which he gained. In another similar case the bride also refused to receive her husband, and after several days of intense misery to both they separated. Later the wife became so melancholic that she had to be sent to an asylum. The melancholia was replaced by mania of a very erotic type, during which the marriage was consummated. The mania passed, but there was no recovery of mind for a long period. Application was made in this case also for a decree of nullity, but failed, as did a similar application in the famous case of a nobleman, in which the marriage was consummated in spite of the great repugnance and resistance of the wife. In all the cases which I have met with women suffering from moral disorder before marriage resisted consummation, and grave dangers may follow the completion of the marriage act, especially if force be exercised. In several such instances acute primary dementia has come on. Even if this do not occur a permanent antipathy of a very wretched kind may appear.

Recently I saw a lady who, being engaged, became restless, and with feelings of unfitness for a married life. She was advised either to postpone the wedding or else to marry at once. Her friends decided on the latter step. The husband at the expiration of the wedding tour returned in a very

dissatisfied state, complaining bitterly of the misery of the honeymoon. At this time his wife, too, had developed a hatred to him; so the experiment of marriage as a means of cure failed, and produced other evils which seem likely to wreck the happiness of two lives.

As part of this subject I will mention cases which have occurred fairly frequently in my experience of men becoming possessed by the idea of impotence as the result of some shock or some slight discovery as to the age or physical condition of their bride. Thus I have known the discovery of false locks or of an artificial set of teeth produce a revulsion leading to impotence. A painful first congress will do the same, and may lead to profound and dangerously suicidal melancholia.

The tragedies following closely on weddings are often the result of some such shock to the feelings which have been slowly passing into a very excited state.

These mental disorders which develop out of a feeling of loss of affection are frequently described by novelists. The young women feel that the growth of the romantic passion is not a steady blazing up, but is associated with feelings almost of loathing at the sight or approach of the lover. They do not understand the part which pain plays in all great pleasure, and they misinterpret this feeling of exhausted passion, and they convince themselves that they are to blame that there is a natural want in them, and thus morbid self-consciousness is produced, and one cannot tell how far it may grow. But already I have exhausted your patience, though by no means the interest of this subject. I shall leave it with you, pointing out once more that it is common in both sexes, that it may lead to all sorts of social difficulties, and even to legal troubles, such as breach of promise to marry. It may lead to suicide and to full-developed melancholia, with its dangers and anxieties. I believe the disorder is eminently curable if treated in the right way.

CLINICAL NOTES AND CASES.

A Rare Form of Mental Disease (*Grübelsucht*). By Conolly Norman, F.R.C.S.I., Medical Superintendent of the Richmond District Asylum, Dublin.*

The case which I am about to bring before the Section is one of a form of insanity that has been seldom referred to by English authors. Hence, perhaps, it has no recognized designation in English. The term "metaphysical insanity," I am aware, has been used, but this phrase is certainly not happy, and has no more descriptive force than the name "metaphysical poetry," which Johnson applied to the works of Cowley and Donne.

The affection to be dealt with was first described by Griesinger in the year 1868 ("Archiv. für Psychiatrie," i., 3), and was by him termed "Grübelsucht," a word for which, I apprehend, it would be difficult to construct in our language an exact equivalent.† It has been considered by some French authors to be a form of *folie du doute*, but it decidedly possesses sufficiently well-marked individual characteristics to differentiate it as distinct from the ordinary varieties of that condition.

Its essential feature is the obsession of the mind by an imperative mode of thought, taking the form of perpetual interrogation, a constant urgent morbid impulse to inquire into and investigate everything, an incapacity to accept contentedly the ordinary postulates of knowledge, and finally a total inability to fix the attention upon anything except the spinning of an endless web of meaningless questionings.

It has been noted by most observers, and Griesinger calls particular attention to the fact, that the questionings which torment the sufferer are mostly of an entirely unpractical and theoretical nature; but this is not necessarily so, as the following case shows. The form which the interrogations take is no doubt largely dependent upon the patient's former habits of thought and degree of culture, etc.

Case.—My patient was a woman, thirty-two years of age, who had been married sixteen years. Her husband was a skilled

* Paper read in the Medical Section of the Royal Academy of Medicine in Ireland, April 20, 1888.

† Deriv. *grübeln*, to go about inquiring, to inquire closely, to busy one's self inquiring about subtle questions or trivial matters, to pry.

artisan. He was a man of violent temper and somewhat irregular habits. Owing to drink and ill-health he was frequently out of work, and the patient's circumstances were constantly often distressing. She had borne nine children, of whom six survived. The last three children were born within a period of two years and nine months. When she came under my care she was suckling the youngest (then four months old). She had been four and a half months pregnant of this child before she was conscious of the fact, and had been suckling the preceding infant up to that time.

On August 10, 1887, she came to consult me, fearing, as she said, that her mind was giving way. Her history was that she first became ill about nine months before (being at that date about five months pregnant). Illness began with smothering sensations in the early morning. She experienced a dread lest, if she did not get up immediately when she woke, something dreadful would happen—the room would collapse, the ceiling fall upon her, or she would go out of her senses before daylight would come. After these sensations had lasted for a while what she called "dreadful illusions" appeared—viz., she could not see a straw or a bit of glass or a bit of paper lying on the ground or floor that she must not pick it up and examine it so as to be sure what it was. If she saw a bit of printed or written paper on the street she felt that she must look at and examine it, see exactly what it was, know what it referred to, and whether it concerned her or not. So much distress was occasioned in this way that she kept indoors in a room with the blinds down that she might see as few objects of the kind as possible. "One evening walking with my sister in the street I saw two bits of paper in the gutter. I was ashamed to stop then and examine them. I could not sleep all night thinking that I must know what was on them. I awakened one of my little boys, told him where they were, and went down with him to get them, but I shut my eyes going through the street lest I should see something else. When I got home I found them indifferent things—bits of children's picture books."

About this time her husband brought her to an hospital. At her own earnest request she was conducted through the streets blindfolded.

Her condition varied somewhat from time to time. On the whole, she was better in August, 1887, than she had been before her confinement. After her confinement she consulted an eminent obstetrician, who stated that she had no uterine disease, and prescribed tonics and nourishment, with apparent benefit.

On her first visit to me she described her state as above detailed, and further said that she found herself unfit for domestic work owing to her condition. If she washed the baby or the clothes the smallest particle of dirt must be investigated. She had to look into it, to see what it was—what it *really* was. When she could find out she was happy for the moment; if she could not find out

her distress increased, and culminated in a nervous paroxysm to be presently described. Similarly with cooking. Extreme distress was occasioned by seeing any small object in the food; had to give up putting thyme in the soup, the small particles caused such trouble. "I asked myself is that a little bit of thyme? It might be something else. That other little bit—is it thyme? I shall never be sure that all these little pieces are thyme. Can there be anything else but thyme in it? What *is* thyme?" and so on. If she were to see a bit of thread sticking out of her child's dress, or lying on the floor, she had to catch it up and examine it, and make out exactly what it was. If someone told her about it she threw it away—perhaps began to think of it again, had to examine it again, and so forth. When she took up a newspaper she had a feeling that she could not lay it down till she had read it *all*. Nothing could be omitted. If she laid it down unread, or partly read, she felt, as she expressed it, "I have still the paper to face," and got no rest till the task was finished. In reading, if she tried to fix her attention, say, on the leader, she kept catching sight of advertisements or other matters of indifference, and felt that she must read these. Thus she could not fix her attention consecutively on any one part, which increased her difficulty. A nervous paroxysm thus originating was frequent.

Complained also of a sense of the unreality of things about her. Nothing looked as it used to. This sensation was apt to be brought on by inability to investigate some trifle. It seemed to come upon her that she could not discover what anything really was, or whether anything was what it seemed.

It will be seen that the objects which served to start her interrogations were usually of a very concrete and definite nature. Sometimes there was a sort of underlying justification, as in her scruples about the cleanliness of the food, etc. Often, however, the sudden call for an act of volition would start the interrogative "illusion," as she called it. Instead of deciding a question put to her, or acting promptly in an emergency, she would begin questioning herself, "Shall I or shall I not? It must be done. What is it? What must I do? What is *doing* anything? God does everything. How can I do anything?" Thoughts like these flash through her mind, and end either in an agonizing sense of their futility and illusiveness, or in mere confusion, both states followed or accompanied by a nervous paroxysm.

The nervous paroxysms of which mention has been made came on sometimes spontaneously, and sometimes were excited by the difficulty she experienced in investigating some matter. They also occurred in consequence of any small shock, a sudden message, an angry word from her husband, or the like. They were very apt to arise when she was prevented, either by herself or others, from following up some inquiry she felt impelled to make. She described these paroxysms as beginning with sudden terrible sense

of something impending or of something left undone, something wrong, something that wanted to be cleared up, and yet an impossibility of making it right or of knowing what to do. This feeling increased to a sort of climax in a complete sense of confusion, accompanied by a dreadful sensation in the head, which she variously described as a "sense of numbness," "of emptiness," "a drumming stinging pain" in the vertex, "a stupid feeling, with a dreadful buzzing sound in my ears." She thought her head shook at such times, but others did not observe this. She fancied she derived relief from squeezing her head tightly with her hands. She trembled violently all over, and broke into a profuse perspiration when the attack reached its acme.

The appetite was fairly good, unless when she herself prepared her meals. Then her perpetual investigation led to a feeling of loathing for the food that she had made ready.

Usually slept soundly from 11 p.m. till about 4 a.m. Immediately on awaking she began worrying herself over something that she had been examining the day before, or something to be examined during the day. She suffered most from early morning till noon, improved in the afternoon, and often felt quite well in the evening, and wondered at her state earlier in the day.

She was very thin and pallid; her lips and gums were pale; the tongue large, pale, and flabby; pulse small, quick, and irritable; facial expression haggard, at once languid and anxious. She was perfectly collected and very intelligent. She had a perpetual distressing consciousness of her own condition, and feared the oncome of insanity. "The brain seems paralyzed; it seems to have no action except just to dwell on one thing—to hunt after a bit of useless paper and see what is on it, or some such childishness."

Ordered (1) to immediately desist from suckling; (2) to refrain for some time from sexual intercourse, wherein there was some reason to believe there had been excess; (3) to take abundance of nourishing food, and one bottle of stout per diem and no more; (4) tinct. ferri perchlor., ♏. 15, ter die, in infus. calumbæ.

It should be mentioned, by the way, that the patient had been always temperate. Of this I satisfied myself, not merely from her own account, but from the statements of her husband and other relatives.

Aug. 23.—Has visited me now four times. There is a distinct improvement. Less nervous and more confident in manner. Appetite good and improving. States that she is still "excited and nervous," but has decidedly more control over her "illusions." "I baffle them off to a great degree; you told me I could, and I find I can." She returns to this statement, and the assurance of her curability seems to give her resolution. She is depressed and anxious in early morning, when trifling worries and customary troubles, especially incidents of the previous day, occur to her mind.

Complains of a tendency to involuntary closure of the right hand. This she can perfectly control, but she constantly finds her hand tightly clenched; notices the pain of her nails pressing on the palm; opens her hand; forgets about it, and presently finds it again tightly closed.

Perchloride of iron changed to ammonio-citrate, 5 grains ter die.

During the month of September and the early part of October, 1887, while I was away on my holidays, my friend Dr. Thornley Stoker kindly took charge of this patient for me. He noted a marked improvement in general health; mentally a good deal of variability, but, on the whole, decided improvement.

October 18.—" Better, much better, but dreadful nervous · not collected at all."

Sleep.—Goes to bed between 10 and 11; falls asleep directly; generally sleeps pretty well till about 4, badly till 6. Sometimes awakes suddenly as if from a nightmare; cannot recollect what the dream was, and is anxious, sorry, and distracted till she can recollect. When the carts pass in the morning she feels she must know what they are. She has a feeling of being sorry—a vague feeling that she would lose something by not knowing—a yearning to know what the cart is; asks her husband, " Do you think is that a scavenger's cart ? " He says " Yes." " What sort ? " " A square one." Then she can dose asleep again, but if he says he does not know, then she feels as if she must follow and find out; that she would lose something if she did not find out; and so on.

Domestic work.—Used to be a " hearty rough woman, brisk in my work, and easy to please; " " can do nothing right now." " If I take up a cloth to wipe the table or the floor when it is damp I say to myself, ' What is that wet ? ' and I cannot go until I find out. If I knock a crumb off the table I cannot go on till I find out exactly what it is; feel as if I could go under the fender—under the grate to get it and see it. If I struggle against these feelings they grow stronger; a sense of confusion comes on. I tremble all over, burst out in perspiration, have an indescribable feeling of agitation and *stupor* " (her own word often repeated). In consequence of these feelings she makes no attempt to cook dinner on week days. She dare not put parsley in the soup; if a morsel of it were greener or browner than the rest it must be investigated; if a piece of dirt were on an onion, or a bit of it were discoloured, the same feelings arose. Similarly with the meat; something—a morsel of fat or bone—would catch her eye, perhaps, as she puts the meat down; she must thereupon take the meat up again to see what the thing is—even then she gets so uncertain that she has often to call one of the children to tell her what the strange object is. Thus with fumbling and investigating so much time is lost that on Sundays (when she always tries to make the dinner herself) dinner is often as late as 5 o'clock instead of 2 o'clock !

Attempts to struggle with the feeling bring on usually a nervous crisis, though sometimes she "baffles the thing off." A rebuke, especially from one of the children, will often make matters right for the occasion. With regard to food, there is distinctly a dread of taking herself, or more especially of giving to her children, anything that she has not investigated. This occurs when the food is being prepared, and also when it comes to table, if she has herself prepared it.

"Since before the last baby was born nothing looked as it used to." Things looked strange; they looked changed; they filled her with an odd sense of doubt. Together with this sense of doubt came the desire to investigate. If she walked in the street nothing looked as it used to. Then if she stopped to look into, say, a shop window, so as to persuade herself things were as before, it called up the feelings that things must be looked into; she must see the other side of a cap hanging up in a milliner's shop; must see if that is a piece of sawdust sticking to a ham in a grocery; must look into the meat hanging in the butcher's shop to see if it is properly cut up.

Ordered to continue iron mixture; to have 15 grains of urethane, horâ somni.

November 21.—Considerable general improvement. She is gaining flesh and colour, and feels stronger. Mentally she is more cheerful and self-controlled. A little thing, however, upsets her. When her husband drinks she becomes depressed and uneasy, and all her old troubles tend to return.

December 29.—"A great deal better." She is little disturbed now in the early mornings; more towards noon. Disturbance that occurs is a sudden questioning of herself, "Am I doing what is right? Have I not forgotten something?" and so forth. So she gets anxious, rushes from one thing to another, tries to do several things at the same time, gets distressed and confused, and can do nothing for awhile till she collects herself.

Ordered iron in increasing quantities; urethane, 5 grs. in early morning, 5 grs. at midday, and 15 grs. at bedtime.

January 10, 1888.—Physically, in fair health and condition; mentally, better than she has been since her illness began. She was able to-day, for the first time, to walk from her own home without the slightest disturbance, or without having to look a second time at anything, or worry over anything which she saw.

From the last-named date she continued to improve pretty steadily. She ceased to take urethane at the end of January, and experienced no disagreeable effects from its discontinuance.

Towards the end of February she had a good deal to trouble her. Her baby died of convulsions. At the time her husband was absent from home looking for work, and she was wretchedly circumstanced. She became depressed, and complained of loss of memory, failure to recollect the trifling occurrences of every-day

life, and inability to fix the attention. She dreaded the return of her former "illusions," as she calls them. Nevertheless, they did not appear, and after a time recovery continued quite without interruption.

She has now been for a considerable period apparently perfectly restored to health.

With respect to treatment, I do not regard the narcotic as of much importance. It was chiefly used to gain time for other agencies to have their effect. The avoidance of debilitating influences was the matter of the greatest consequence. Next in importance came nourishment and the exhibition of iron. I cannot help thinking that the moral influence of someone talking to her over her sufferings, and of the assurance that she could to a large degree control herself, and that she would make a good recovery, was very beneficial.

There are many points of interest in this case. I have given the symptoms with considerable minuteness of detail on account of their rarity, and because I have not been able to find in the literature of the subject any case representing so complete a picture of the condition as that which I have been able to sketch here, to a large degree in the patient's own very words. The integrity of the intellectual faculties, using that phrase in the limited sense, is a sufficient guarantee of the patient's trustworthiness. In all particulars capable of verification by the evidence of others, I found that her statements were fully borne out by her friends.

With reference to etiology, the illness first appeared during pregnancy. The same is recorded in one of Griesinger's three cases. Meschede, who has given a careful description of this condition under the name of phrenolepsia erotomatica ("Zeitschrift f. Psych.," xxviii.), narrates two cases. In one the disease came on during pregnancy. In Griesinger's and Meschede's remaining cases, and in the case given by Schüle in the second edition of his "Handbuch," there was a history of either onanism or extreme sexual excess. It is well known that imperative conceptions and the *maladie du doute* are very frequently associated with sexual depravity, or in women with pregnancy. But I believe that there were several causes in action in the case before us—debility produced by frequent child-bearing and excessive lactation, together with mental worry and distress, prepared the way. Perhaps some, so to speak, specific effect of pregnancy determined the form which the illness took, and after delivery the disease was kept up by lactation (exces-

sive in relation to her weakened state), and possibly by sexual excess.

Krafft-Ebing believes that this condition is found almost exclusively among the predisposed. In my case I made most careful inquiries for hereditary neurotic taint, but could find no trace of it. The woman had suffered from no nervous diseases previously, and had enjoyed very good health up to the oncome of this illness.

It is to be noted that these cases are hardly ever to be found in public asylums. They usually occur among the class of private patients. The three cases described by Griesinger were individuals of education and high social position. Berger's patient ("Archiv. für Psychiatrie," vii., 2) was a law student. Dr. Schüle, whose wide experience extends over twenty-five years of work, told me that he has never seen a case except among private patients. Meschede's cases occurred in a public asylum, but one gathers from his description that both patients were persons of good education. My patient was educated far above the average of her class, and was a woman of bright intelligence, capable of giving an excellent description of her condition.

Among the very few cases that are on record I have not been able to find anything resembling the nervous paroxysms that I have mentioned accompanied by pain in the head, etc., save in Berger's case. In it the attacks were more or less paroxysmal, and were accompanied by sudden flushing, precordial anxiety, twitching of the facial muscles, and occasionally a sudden bending of the head upon the chest.

It would take up too much time to discuss all the interesting analogies and connections of this form of mental disturbance. The condition in a feverish dream, the commoner forms of imperative conceptions, and some cases of neurasthenia and *folie du doute* immediately suggest themselves. Krafft-Ebing, who describes the state under review as one of the formal disturbances of the imaginative faculties —a disturbance in the mode of association—points out its close connection with imperative conceptions ("Lehrbuch der Psych.," 3 Aufl.). Schüle, regarding it as a form of imperative conception, classifies it in his new scheme under the same head as *maladie du doute et du toucher* ("Klinische Psychiatrie," 3 Aufl.). The general analogies of Grübelsucht would undoubtedly lead one to class it, as both the last-named authors do, among the mental degenerations, and regard the prognosis as unfavourable; yet this particular

case tends to confirm Spitzka's remark that it is a very curable form of insanity.*

A Case of Chorea associated with Insanity.† By GEORGE P. COPE, L.K.Q.C.P., Senior Assistant Medical Officer, Richmond District Asylum, Dublin.

I am indebted to the kindness of Dr. Conolly Norman, who placed the following interesting case under my care, for permission to publish my notes of it.

W. B., admitted November 10, 1887; æt. 19; single; farrier.

History.—Father, mother, brothers, and sisters alive. No relative has been insane, or has suffered from rheumatism. Mother states that the patient was always healthy. Had scarlet fever at an early age, and made a good recovery. Never had convulsions, nor suffered from rheumatism. Was a quiet lad, and temperate. She noticed a change about two years ago, when he commenced to remain constantly at home, and very seldom went out in the evenings after his work. Appeared generally "nervous," and at times fretful. Nearly three weeks before admission he came home from his work and told her he was not well. Next day she noticed peculiar movements of his left arm, which increased and extended to his leg. Observed that he became very suspicious, and that his temper was changeable. Shortly afterwards he inclined to refuse his food, and said "they wanted to poison him." She had to taste all foods before he would partake of any. Has not eaten very much food for about two months.

On admisson.—Patient would not reply to any question, and was much excited. He was rather thin, but muscles of arms were well developed. Both pupils dilated. Anæmic; dark zone under both eye-lids. Persistent grimacing; head jerked from side to side; extensive choreic movements of left side of body, which was twisted

* In the discussion that arose on this case, the Chairman of the Section, Dr. James Little, President of the King and Queen's College of Physicians, cited as bearing on the subject two cases, which he thus described:—"Some years ago a business gentleman consulted him whose duty it was in his department to take the invoices and mark on the pieces of cloth the proportionate price to allow the regulation profit. He had been many years at this, and was so expert that no matter what the fractions to which the invoice price descended, he might go on without making a mistake; yet he got into a state of doubt that, even if the invoice price were only a shilling, he could not convince himself that he was right, 'though the man inside' told him he was. Another case came under his observation in which a pharmaceutical chemist, failing to convince himself of the accuracy of weight or measure, could not carry on business, and life became almost intolerable." This interesting condition is not at all identical with the state to which Griesinger has called attention, though both present a certain similarity through the irritable weakness that underlies each. The cases described by Dr. Little bear a very close analogy to various forms of occupation neuroses, such as Scrivener's palsy, etc.

† Paper read at the quarterly meeting of the Medico-Psychological Association, held at the College of Physicians, Dublin, May 17, 1888.

about to such an extent that he had to be held when standing, as he was not able to balance himself. Tongue was furred, and put out with a jerk. Respirations normal. Heart quick, but regular, no murmur detected; pulse 90. No swelling, redness, or tenderness about joints. He was placed in a single room in the hospital, floor of which was covered with mattresses to prevent him injuring himself. Would not take food. About midnight became very noisy; tore some of his bed-clothing; at times shouting and hammering at the door. Did not sleep during the night.

11th.—Had to be dressed in strong clothing, as he would or could not keep himself covered. Bowels had not acted, ordered enema of castor oil; could not get any urine, as patient passed it under him. Would not take any food.

12th.—Again refused his food. Has not slept. Choreic movements of left side continue; right side not affected.

13.—Did not sleep. Is in a miserable condition; his lips covered with sordes, disagreeable smell from breath, face pinched and anæmic. Tried to induce him to partake of some food, but without success. Then endeavoured to feed him with the nasal tube, but could not introduce it owing to the choreic movements of his head, which appear greatly increased. With considerable difficulty fastened a gag, and used the soft œsophageal tube; about midway it was held, and prevented for a short time from passing. Gave him some eggs and milk, and told him I would again feed him in a similar manner. When dinner-hour arrived, and everything was ready for feeding, he spoke to me for the first time, and said he would take his food, which he did with some difficulty. The choreic movements seemed then more under control. Took his supper at 10 o'clock p.m. He was better, calmer; movements less severe.

14th.—Slept for two hours; improved mentally; takes food well; says he feels better; chorea much less severe, nearly entirely gone from left lower extremity; head not jerked about so much; bowels have not acted since morning of 12th; ordered mixt. sennæ. co.

15th.—Has considerably improved, and slept for several hours. Removed from single room to open dormitory. Left arm still affected; at times jerks his head. Has improved physically; face not pinched, sordes on lips disappearing, and tongue cleaning; skin moist and cool; pulse 80. Again examined him, and found respiratory sounds normal; heart quick, but no murmur; urine contained no albumen. Takes his food. Anæmic; ordered 4♏ doses of Fowler's solution three times a day.

16th.—Chorea has disappeared. Memory defective; no recollection as to what has happened.

20th.—Very much better; no return of chorea. Is bright and cheerful, able to walk about the grounds. States that his illness commenced about four weeks ago, when as he was returning home after a hard day's work felt as if something had given way in his ear; then became very nervous, heard bells ringing, and soon afterwards

lost the use of his left arm and then his leg. Says he never suffered from pains in his joints or muscles. Admits he masturbated for some years, and more frequently for some days before he took ill.

23rd.—Removed patient from the hospital to the school division. Has considerably improved; sleeps very well, and has had no return of chorea.

10th January, 1888.—Left the asylum. Since removal from hospital he has been seen by me daily; had no return of chorea; at times was fretful, and slightly nervous; occasionally would cry, says that his reason for doing so was his dislike to being detained in the asylum.

So far as can be ascertained there has been no return of chorea or of maniacal excitement since his discharge.

Remarks.—The history and symptoms of the case which I have ventured to bring under your notice give it, I think, unusual interest for the following reasons: Chorea affected the left side only; no trace of rheumatism or neurosis could be found in family or personal history; the patient made a peculiar and rapid recovery. Most of the cases reported which I have been able to find show that they suffered from chorea affecting both sides of the body. The attributed cause generally was a rheumatic diathesis, or the existence of a neurosis in patient's family. In the absence of any rheumatic or neurotic taint, and being satisfied that the case was not of a hysterical form, I have been driven to seek for some other cause to account for the very acute attack of mania and intense chorea, and after careful consideration of the surroundings of the case have come to the conclusion that this patient's illness arose from the anæmic condition and general debility acquired by persistent masturbation and want of nourishment.

The recovery of the patient can be dated from the time that it was necessary to resort to artificial means of feeding, viz., on the morning of the 13th, three days after admission. It was then absolutely essential to feed him. He from that date rapidly commenced to improve, the maniacal attack passed away and chorea became less severe, and entirely disappeared on the evening of the 15th.

If a similar case again came under my care I should be inclined to feed the patient as soon as I possibly could, as I believe the unexpected shock, viz., the attempt at introducing the nasal tube and then passing the æsophageal tube, assisted recovery in this case. Ziemssen, in the "Cyclopædia of Practice of Medicine," reported two cases of chorea magna simulated in the male that recovered by an unexpected stimulus.

Before concluding this paper it may prove interesting to shortly refer to some of the most noted instances of choreic insanity. The ætiology varies in most cases from the one I have brought before your notice. Of these the first to which I will allude is one of two cases reported by Dr. Wiglesworth in the "Journal of Mental Science," No. cxxi., in which rheumatic symptoms were only indirectly traced, viz., by systolic bruit at mitral orifice, there being no joint or muscular complications; both sides of the body affected with chorea.

Dr. Clouston refers to some interesting cases of chorea affecting both sides, accompanied with insanity, in the "Journal of Mental Science," No. lxxiv., due undoubtedly to rheumatism. Dr. Macleod, in the same Journal, No. cxviii., describes three cases of chorea in aged persons; chorea attacking both sides. Dr. Bevân Lewis describes a case in No. cxxx. of the same Journal of post-hemiplegic hemichorea associated with insanity.

In Dr. Lewis's case "The post-mortem examination revealed patches of softening in the motor areas of both hemispheres," "traced to a venous thrombosis resulting from partial plugging of the lateral sinuses and an extension of an old organized clot backwards into the minute vessels at the vertex." Here we have, as Dr. Lewis says, a condition supremely favourable to capillary pluggings.

In Dr. Macleod's cases there was a distinct coarse lesion affecting the motor areas (in two arachnoid cysts, in one multiple tumours of the dura-mater). It is remarkable that hereditary tendency to chorea also existed in these cases. In a case originally recorded by Dr. Maclaren ("Journal of Mental Science," Vol. xx.), the post-mortem account of which is given by Dr. Macleod, extravasation of blood over the middle lobes was found, and traces of old inflammation of membranes. Dr. McDowall, of Morpeth, has described a case of limited chorea, or "athetosis," occurring in an elderly dement who had a strong hereditary tendency to insanity. In a very similar case that came under his notice some years ago, which also presented a strong resemblance to Hammond's athetosis, Dr. Conolly Norman informs me that he found post-mortem extensive pachymeningitis hæmorrhagica interna.

It is evident from the short duration of the symptoms and the completeness of the recovery that in the case I have noted the affection was due to some mere "functional" mischief.

A Case of Post-Febrile Mental Stupor or Acute Dementia. By JOHN TURNER, M.B., Assistant Medical Officer Essex County Asylum.

The patient, W. L., was admitted on the 21st March, 1888, into this asylum; sixteen years of age.

Previous history and antecedents.—Both his father and mother have been inmates of a lunatic asylum. Eighteen years ago the mother, then a patient at Brookwood Asylum, formed the acquaintance of the father, who was also a patient, and they were married after discharge as cured. The mother and one sister are inmates here at present, and the doctor who attended the family informs me that "all the children are mad, or next door to it." W. L. was the eldest of ten, and the mother tells me that shortly before coming here he had typhoid fever. He only presented symptoms of mental disease a week before his admission, and there were no preliminary signs of mania or melancholia. He passed at once into a state of stupor. He had previously been a bright, clever lad (according to his mother's account), and did actually earn 10s. a week as a milk boy.

On admission.—He is in a very weak condition, and thin. Has a feeble circulation, with blue and cold extremities; face flushed; sordes on the teeth, lips, and nostrils; a sore on the lower lip, and several on the left hand; breath foul; chest slightly sub-resonant over the apices; nothing beyond extreme feebleness of heart's action to be noted in regard to this organ; knee-jerks much exaggerated; no ankle clonus; pupils equal, and react to light; cremasteric and abdominal reflexes present; plantar absent; he will not speak, and takes not the slightest notice of anything around him, or of what is done to him. There is a tendency for his limbs to remain in any position in which they are placed.

March 22nd.—Temperature in axilla this morning was 98·4°. Face still much flushed; pulse at wrist not perceptible; fed twice through the nose with milk and eggs; wet his bed last night.

March 28th.—Bowels have acted on several occasions following enemas. To-day for the first time he has taken some food naturally, and appears to pay more attention to his surroundings, but he will not speak.

March 29th.—Is taking his food; lips and nostrils cleaner; breath still very foul; will not speak, but, when told to put out his tongue, opens his mouth.

April 6th.—He spoke a few words yesterday, but has again relapsed into obstinate silence; a strong mousy odour pervades him. Bowels opened naturally.

April 14th.—His face has a very curious aspect; the cheeks and forehead are deeply flushed, but on the forehead the veins stand out prominently and blue, and the skin on either side of their course is of a much paler hue. He notices things, and follows one

about with his eyes, and will open his mouth when told to. Never moves his body, but if rolled over on to his abdomen, after a long time he slowly rolls back.

April 16th.—He is extremely emaciated, and has little dry superficial sores about his buttocks. Rect. temp. = 100·2°. When the hand is quickly passed before his eyes he closes the lids.

On the 26th he died.

Post-mortem examination :—Thirty-five hours after death.

Body.—Emaciated; abdomen sunken and greenish; rigor mortis absent from neck and upper extremities, and passing from the lower; several small superficial dry black eschars about the buttocks and over the sacrum and trochanters.

Head.—Some adhesions of the scalp to the calvarium in places, and the former was thick and tough. The dura mater was firmly adherent along the course of the superior longitudinal sinus. The pia and arachnoid were not milky, neither did they appear thickened; but in several places they were adherent to the cortex, notably about the frontal and left ascending parietal lobes. The brain was of normal consistency, and beyond the existence of some small granulations on the surface of the corpora quadrigemina did not present any naked eye morbid characters. Cerebrum weighed $47\frac{1}{2}$ ounces; pons and corp. quadrigemina, 1 ounce; cerebellum, 6 ounces; total, $54\frac{1}{2}$ ounces.

Thorax.—The lungs were free from adhesions, and were actively congested; the heart was small, but seemed fairly healthy; it weighed five ounces. The blood presented very little signs of clotting.

Abdomen.—Liver and kidneys healthy; the latter weighed $2\frac{3}{4}$ ounces each. Spleen firm and small; it weighed $2\frac{1}{2}$ ounces. Suprarenals of the usual size; the cortical portions were of an uniform yellow colour, and cut like cork; the medullary substance of each gland was firm, and white; glistening fibrous tissue was interspersed throughout the red matter. The mesenteric glands were a little enlarged, but free from any caseous degeneration; one, however, was of the size and consistency of a marble.

Microscopical appearances of brain.—1. A portion was taken from the left motor region of the cerebrum, hardened in Muller's fluid, and sections cut from it were stained with acid fuchsin and aniline blue. There were no signs of spider cells anywhere; nerve cells appeared normal, and stained well. Some of the smaller vessels had their walls thickened from swelling of the cells of the middle coat. The red discs in the blood-vessels in a number of places appeared disintegrated; they stained vividly with acid fuchsin, but their contour could not be made out, and they were broken up and granular. 2. A section was also taken through one of the granulations on the surface of the superior corpora quadrigemina, but there was a considerable difficulty in mounting it, as putting it through the various processes detached the delicate formation. One was, however, mounted in "Farrant" after being stained in-

differently in picro-carmine. It measured $\frac{1}{40}$in. by $\frac{1}{80}$in., and was composed of spider cells. Round its circumference was a more densely-matted border, formed of interlacing processes from the cells. There were in the superficial layer of the sup. corp. quad. a considerable number of large-bodied spider-cells, the body staining faintly, and having a hyaline appearance, and the processes more deeply. Nerve-cells appeared healthy, and there were numerous myeline-coated fine nerve-fibres scattered about.

Remarks.—In the minds of many physicians in England and abroad qualified to give an opinion, there are grave doubts as to whether we are justified in using the term "acute dementia." They consider that the name is a very unfortunate one. Dr. Clouston, in his work on insanity, thinks that the term "anergic stupor" applied by Mr. Hayes Newington to cases which present many clinical features similar to the one just recorded "should take the place of the older term, acute dementia." But it appears to me that when a disease presents evidence of organic change (degeneration) in the brain, the term "stupor" is not sufficient to define it. The stupor was only one of the symptoms in the case, and might have been present without visible organic change in the brain, depending on some functional disorder. The three changes noted at the post-mortem examination of the brain were :—(1) Adhesion of the pia to the cortex about the frontal and left motor regions; (2) Thickening of the walls of some of the smaller vessels of the cortex; and (3) The presence of small clear buds or granulations growing on the surface of the corpora quadrigemina, all changes which are very commonly associated with forms of dementia of whatever origin. Microscopically it was found that the granulation examined was composed of spider-cells and processes, and there were besides numerous spider-cells found in the superficial nervous tissue of the corpora quadrigemina. The existence of these spider-cells indicates a process of degeneration, the replacement of a higher less organized by a lower more organized tissue—a connective tissue. An important point clinically wherein the case of W. L. differs from those included by Mr. Hayes Newington under the term "anergic stupor" is that in the former the deep reflexes were exaggerated, whereas in the latter they are said to be absent. This exaggeration of the deep reflexes is a very usual accompaniment of dementia, more especially when, as in general paralysis, it comes on in the prime of life, and rapidly.

OCCASIONAL NOTES OF THE QUARTER.

The Annual Meeting.

It may safely be affirmed that no Annual Meeting of the Medico-Psychological Association has been more successful than that which assembled in Edinburgh on the 6th of August, 1888.

The three divisions of the United Kingdom were well represented in the Scotch Capital, and the proceedings of the morning meeting were business-like and lively. To one of the questions discussed we refer in the next article.

The afternoon meeting was devoted exclusively to the Presidential Address, and the intention of the orator was secured—that, namely, of raising an interesting debate upon the propositions which he formulated for the consideration, and, if tenable, the acceptance of the meeting. We think that Dr. Clouston's Thirty-One Articles are in a fair way of becoming historical in the annals of the Association. It is a pity he did not make them thirty-nine. Perhaps they will grow. Had the President of the sister association (Professor Gairdner) been present at the discussion, he could not have resisted the temptation of emphasizing his favourite theme by the illustration the occasion afforded of the contrast between the enforcement of ecclesiastical articles by threats of excommunication and still worse penalties, and the request of our President for free discussion and criticism of *his* medico-psychological articles.

Dissent from these conclusions was frankly expressed. There was no difference of opinion, however, as to the ability of the Address, its value as a contribution to psychological medicine, or the many-sidedness of the study which it suggested. Indeed, its suggestiveness must retain its importance, whatever may be the ultimate verdict on the dogmata laid down. No greater service could be rendered to the cause of the insane than to devise some means of lessening the fearful and depressing "tendency to dementia," which is the mill-stone ever suspended round the neck of the alienist physician in or out of an asylum. But profounder knowledge of the pathogenetic and pathological conditions of dementia ought to help us to discover the solution of this great and pressing problem; and to this end the President's discourse is at once a stimulus and a contribution. We may believe that as physical death is the

eventual lot of the body, so the supreme brain-centres have a limit set to their functions in the present state of being, and tend to dissolution or devolution as certainly as their evolution has been brought about in the past; but this ultimate reversion to original weakness ought not to paralyze our efforts to postpone the evil day as far as possible. We are disposed to think that the unique character of dementia on which so much stress is laid in the Address is open to doubt, and that what is said in the Thirteenth Article—that we have no reason to think that a brain which has a perfectly sound heredity can by any series of bad conditions known to us be made to exhibit typical secondary dementia—applies just as forcibly to any other form of mental disease. We think that there is great novelty in the position taken that almost all pure cases of secondary dementia originate in pubescent and adolescent insanities, for this is going far beyond the common and but too painful experience as to the number of adolescent dements in our asylums. If Dr. Clouston's statement can be substantiated, it is as pregnant with instruction as it is bold. We have no intention, however, of rediscussing the Address, and must refer the reader to the report of the Annual Meeting, under "Notes and News," for further comments.

Of the welcome given to the Association by our Scotch *confrères* it is impossible to speak too highly. From beginning to end their kindness and hospitality were unstinted, making the visit to Edinburgh a most agreeable one, and largely contributing to the unquestionable success of the Annual Meeting of 1888.

Mode of Electing a President of the Association.

The question was raised at the Annual Meeting whether the present system of nominating a President* by the Council is the best that can be devised, the objection being that deference to its nomination, and a delicate consideration of the feelings of the nominated, prevent the members substituting any other names on the balloting list, should they be so disposed. On the other hand, it is considered by some that the objections, which a few years ago were so

* Our remarks are confined to the office of President, because his election takes place annually as a matter of course, while it is usual for the other officers to remain in their posts until their resignation.

strongly felt by a majority of the members as to lead to the abandonment of the old system, continue in force, and ought to make the Association pause before returning to it. It is thought by many that the system of nomination and balloting now in use by our Association involves a minimum amount of personal annoyance, and a maximum amount of fairness. To have the rival claims of Brown, Smith, and Jones canvassed in an open meeting may be exciting, or even amusing, but is perhaps scarcely edifying. An alternative scheme has, however, been suggested. It is this: That the Council shall, as regards the election of a President, nominate, say, three Presidents, any one of whom, or none of whom, may be elected. It should be remembered that when the balloting papers were adopted at the suggestion of the late Dr. Parsey, during his Presidency, the hope and belief were entertained that the members would exercise their undoubted right of substituting other names than those nominated by the Council, should they desire so to do. If the scheme has failed it is not the fault of the Council, but the general body of members, who neglect to make use of the remedy placed in their hands by the Rules of the Association for the very purpose of giving expression to opinions and wishes diverging from those suggested by the Council. It was Dr. Parsey's desire that such divergence should be indicated and take effect through the balloting papers presented to the Annual Meeting, and not by verbal expression—that is to say, by the silent but effective pen rather than by the tongue, confessedly an unruly member. One member at least, Dr. Urquhart, objected at the time to this limitation in the mode of opposing the nomination of the Council, but the current of opinion ran strongly in the opposite direction, and hence the tacit adoption of a practice in the election of President which has obtained to the present time, and which, indeed, is the natural outcome of the existing system. If this system fails to give satisfaction to the majority of members, let the Association return to the old method, or to the middle course which we have mentioned, but it would be well before arriving at a conclusion not to forget altogether the disadvantages formerly felt when the merits and claims of rival names were openly discussed at the Annual Meeting.

The Lunacy Acts Amendment Bill.

At the commencement of the Parliamentary Session it was generally expected that this Bill, which has been so long under discussion, would become law. This expectation was confirmed when it passed through the House of Lords without any serious opposition. The business in the House of Commons, however, effectually interfered with its ever getting into Committee, and the Government found it necessary to discharge it with many other Bills. An opportunity is, therefore, once more afforded by the delay for the Parliamentary Committee of the Association to press upon the Legislature the importance of the amendments which it is desired to introduce in the interests of the insane, and, in some instances, those of medical men engaged in lunacy practice, whether in or outside the walls of asylums.

British Medical Association, Psychology Section.

The meeting of this Section at Glasgow in August, under the presidency of Dr. Howden, the Superintendent of the Montrose Asylum, was a very successful one, and was well attended from first to last. A brief report of it will be found under "Notes and News," and some, if not all, of the papers read will appear in this Journal as the space at our command allows.

Apart from the meetings of the Section, the principal attraction to alienists was the Royal Asylum at Gartnavel, the physician superintendent of which hospitably entertained a large number of members at the Grand Hotel on the first day of the meeting of the British Medical Association, and on a subsequent occasion invited them to the institution, where a luncheon, provided by the Directors in one of the wards, and presided over by Dr. Yellowlees, preceded the inspection of the institution. It is a striking characteristic of this asylum that, although erected between forty and fifty years ago, the architecture of the building externally, and its internal arrangements, leave little to be desired in appearance or construction. For this great credit is due to Dr. Hutcheson, the then superintendent, and to Mr. Wilson, the architect. It is also noteworthy that the early reports of the Glasgow Royal Asylum, in the beginning of the century, exhibit very enlightened views in regard to the requirements of the insane, and their moral and physical treatment, showing that occupations, amusements, and ample liberty were

all fully recognized at that period. Under the management of Dr. Yellowlees the present condition of the house is most satisfactory, and the treatment, it is needless to say, humane, and, what is equally important, eminently practical and sensible. It maintains the high character of those Scotch institutions, of which Gartnavel is typical, which have conferred, and still confer, such enormous blessings upon the middle and poorer classes, for which they are primarily designed, while the terms paid by the opulent class serve to supply the deficiencies caused by the small payments of those of limited means.

We take this opportunity of expressing, on behalf of the Medico-Psychological Association, our satisfaction that the University of Glasgow has conferred the honorary degree of Doctor of Laws (LL.D.) on Dr. Yellowlees, in connection with the meeting of the British Medical Association. As Chairman of the Executive Committee he rendered very great help to the meeting, but we prefer to regard this distinction as being intended to mark the appreciation of Dr. Yellowlees by the Senatus as an able and successful mental physician, whose good work at the Royal Asylum at Gartnavel, and also as a lecturer on Insanity at the Glasgow University, deserved this public recognition.

PART II.—REVIEWS.

Die Letzen Tage König's Ludwig II. von Bayern, von Dr. Franz Carl Müller, ehem. Assistentarzt des Ober. Med. Rath von Gudden, etc., Dritte unveränderte Auflage, pp. 53. Berlin, 1888.

Bernhard von Gudden, Nekrolog. Archiv. für Psychiatrie, xvii. Band, 3 Heft.

Ludwig der Zweite, König von Bayern, von Ludwig Klingner, Universal Bibliothek, Leipzig.

When we set to work to write a narrative of the events which ended in the death of Ludwig of Bavaria for the "Journal of Mental Science" (October, 1886), the materials were already abundant, but as most of the information had come from newspaper correspondents who had hastened to gratify public curiosity, it might be suspected that some of the details had been eked out by imagination. The general outline of events cannot be altered by any subsequent information, but as the tragical fate of the King will always

occupy a striking page in German history we may expect that the actors in the scene will put in writing their impressions and recollections, and that these in course of time will be given to the world. Since our narrative appeared two contributions have been published, so full and authentic that it seems as if little more can be added to our knowledge of the closing events which led to the death of the King and the physician in charge. The obituary notice of Bernhard von Gudden is written by Professor Grashey, of Würtzburg, one of the four medical men who signed the certificate of insanity. An obituary notice is generally nothing more than an eulogy of the deceased. While grief is fresh it is thought proper to avoid all criticism. Occasionally such advantage is taken of this immunity that one is disposed to amend the maxim *nil de mortuis nisi bonum* into *nil de mortuis nisi verum.* Though as a scientific man and a physician Dr. von Gudden's reputation was so high that it was easy to bestow praise, some of the circumstances attending the close of his useful and honourable life might be open to misconstruction, hence Dr. Grashey made it his endeavour to defend the memory of his father-in-law, while Dr. Müller, though willing to do justice to his late chief, is naturally solicitous about his own reputation. In other points there is little disagreement between the two narratives. Dr. Müller, who was Assistant Physician in the District Asylum for Upper Bavaria, was in the habit of visiting Prince Otto, about whose mental condition he sent regular reports to the King, his brother. In May, 1886, Müller spoke to Gudden about a report which he was then preparing about the Prince, and then took occasion to allude to what had got into the Vienna papers concerning the mental health of the King.

"Gudden was not a man who could be drawn to talk on a subject which he would rather have avoided; but on this occasion," writes Dr. Müller, "he took up the word and told us at length that the King was insane, as insane as his brother. There was no help for it, and a change in the government of Bavaria was only a question of time." Dr. Grashey came to Munich on the 7th June, and found him busy collecting and arranging materials for a report on the King's mental condition. It was necessary that such a document should be of a weighty and solid character. Should the experts called in not be satisfied with the character of the evidence, should any one of them have disagreed with the rest, or have insisted that a personal

examination of the King was necessary, the proceedings would probably have been suspended. Everything, therefore, depended on the medical report, and all subsequent action was founded on its absolute correctness. In preparing this report Dr. Grashey tells us that Gudden only slept two nights out of five—from the 7th to the 12th of June. On the 8th of June, Dr. Gudden came to Müller and said shortly, "In a few days a regency will be appointed. We go to-morrow to Hohenschwangau and announce this to the King; then we go with the King to Linderhof, where he will be treated. You go with me to undertake the treatment in Linderhof. Make the necessary preparations for a fortnight's journey."

Dr. Grashey was to go to Linderhof to prepare a chateau for the King's reception. Dr. Müller then tells us of the proclamation of the regency, and the arrival of the commission at Neuschwanstein, the refusal of the guards to admit them, their withdrawal to the neighbouring palace of Hohenschwangau, where they were arrested by order of the King. Dr. Müller was one of the captives. At a public-house on the way they saw a number of country people who had assembled to defend the King, and had it not been for the district magistrate they would have shown their hostility to the Commission as they were marched along to Schwanstein, in custody of the sergeant of gendarmerie and his guard. They were lodged in separate rooms. Dr. Müller gives the text of the order, which the King wrote with his own hands, what was to be done with the prisoners. "The skin should be torn from the traitors, and they should be starved." Dr. Grashey, who was not amongst the captives, speaks of the sentence in terms of refined meekness. "Some of his Highness's orders concerning the further fate of those arrested, and which cannot be mentioned on account of their incredible nature, remained unexecuted," that is to say, none of the Commissioners were flayed alive. After being kept in confinement for several hours they were released at the instance of the district magistrate, who explained to the gendarmerie the proclamation of the regency and the folly of resistance. The Commission returned that night to Munich. The next day, however, saw them back to Schwanstein. Ludwig was now deserted by most of his servants, and they were prepared to enter the palace and take him away by force if necessary. Owing to the excited state of the people it was determined not to conduct the King to

Linderhof, a secluded place amongst the mountains, but to the Chateau of Berg, by the Starnberg Lake, which was nearer to Munich.

The carriages for the whole party were to be ready at four o'clock, but at one o'clock the King's chamberlain, Meier, came, saying that the King had drank a good deal of rum, that he was much excited, and had several times asked for the key of the tower, saying that he intended to throw himself over. They had told him that the key could not be found, but that they were seeking for it. There seemed danger that if an attempt was made to enter the King's room by force he would throw himself out of the window, and as the palace was situated on a precipitous rock he could thus make an end of himself at any moment. Gudden saw that no time was to be lost. He went with his party along the panelled corridors to a winding stair which led up to the ominous tower. About the middle of this staircase there was a corridor leading directly to the King's room. Gudden placed some of his keepers on the steps above leading to the tower, and himself stayed with the rest below, so that no one could be seen from the corridor. He then sent the chamberlain with the key of the tower to the King.

"Suddenly," writes Müller, "we heard quick footsteps, and a man of imposing height appeared from the door of the corridor, and spoke in short, broken sentences with a servant who stood near, bowing low. The attendants above and below went towards the doors, cutting off his retreat, and quickly seized the King by the arms. Gudden then stepped forward and said, "Your Majesty, this is the saddest commission of my life which I have undertaken. Your Majesty has been certified by four alienist physicians, and on their certificate Prince Luitpold has undertaken the regency. I have been ordered to accompany your Majesty to Schloss Berg this very night. If your Majesty orders it, the carriage will be ready precisely at four."

The King uttered a short, painful "Ah!" and said, "What do you want? What is this?"

The King was then led back into the room which he had quitted, and Gudden began to talk to him about his brother, the Prince Otto, when the King abruptly asked, "How could you certify me to be insane when you had not before seen and examined me?"

Gudden replied, "Your Majesty, that was not needed. The evidence collected was very copious and decisive."

Ludwig then asked how long the cure would last? when

Gudden said that to justify a regency it was necessary for the King's illness to last a year. To which Ludwig answered, "It will be shorter than that. They could do as they did with the Sultan. It is so easy to put a man out of the world."

Dr. Müller describes the King as a big, stately man of a powerful frame. He gazed at those around him with his great eyes, but from his glance the self-sufficiency had disappeared, and there was a marked hesitancy; his face was pale, his speech abrupt, but full of repetitions, and his movements uncertain. They had expected him to burst into a towering rage, and were evidently surprised at the self-command he showed. Before setting out he had a conversation with his chamberlain, whom he asked for poison. The party left in three carriages, the King being alone in the middle one, the doors of which were secured.

The journey lasted eight hours. Professor Grashey had gone on before to Berg, in order to make arrangements, and everything was ready save that the windows, from which it was feared the King might throw himself, were not barred. In his conversation with Dr. Müller, Ludwig repeatedly introduced the subject of poisoning. "It is easy," he said, "to put something in a man's soup, that he never awakes." As no answer was given to this suggestion the King asked, "What means are used to cause sleep?" "There are many—opium, morphia, hydrate of chloral, bathing, washing, and gymnastic exercises."

Ludwig then abruptly changed the conversation. "You wear spectacles. Are you short-sighted?" "In the one eye I am short-sighted; in the other astigmatic."

Naturally the King wanted an explanation of astigmatism, and after a few more questions he led back to the subject that the medical attendant who was to relieve Müller would find some means to send him out of the world, to which Dr. Müller replied: "Your Majesty, I can answer for my colleagues as for myself. The duty of a physician is to heal, not to destroy."

It may be here noticed that the King repeatedly put these suggestions as if he were afraid of being secretly poisoned or murdered.

Professor Grashey describes the walk in the morning of the King and Gudden with the two keepers behind, and apparently this consideration, with the King's friendly deportment, tended to remove Gudden's fears of suicide or violence. Dr. Grashey tells us of a conversation which he

had with Gudden the morning of the 13th. Gudden observed that the King was anxious about his life, that he was afraid of weapons, and only thought of suicide when in an excited state. When excited he was dangerous, especially as he used to drink a great deal of rum, which, of course, would not now be allowed him. Grashey saw the King and Gudden take their walk in the morning along a footpath which skirted the lake, which was about 15 yards distant from the shore of the lake. In the intervening shrubbery he had placed a gendarme. The King and Gudden walked along, quietly talking, and about 30 paces behind there followed the two keepers. Gudden turned round and waved the keepers to keep a greater distance, which they understood. It did not occur to Grashey that under these circumstances there was any great danger of the King drowning himself in the lake, which was known to deepen so slowly that one would need to go about 30 yards before he was out of his depth. After they had returned, Grashey bade Gudden farewell, leaving for Munich about half-past four. During dinner Gudden said that they would not want the gendarme by the shore of the lake as he had come upon them suddenly during their walk, which had annoyed the King.

We are told about the precautions used to prevent the deposed King having any opportunity of committing suicide. The shutters of his bedroom were kept closed till the windows could be barred, he was constantly watched through holes made in the doors, the knives at table were blunted, and so on.

We now approach the fatal moment when the King and Gudden stepped out alone to the shore of the lake. Grashey says that he does not believe that Gudden really told the keepers not to follow. He bases his belief upon what he heard Gudden say about the case and his general character for prudence. Nevertheless, wise men occasionally do foolish things, and a cautious man may do something which costs him his life. Müller quotes the statement of the keeper Mauder that Gudden told the attendants to turn back: "*Es darf kein Pfleger mitgehen.*" At this time Gudden was at the door of the chateau, four or five steps behind the King. The keeper immediately went and reported to Müller that the keepers had been turned back by Gudden. Grashey insists that Müller should not have minded the statement of the keepers, but should have instructed the men to follow, so as to keep the King and the physician in view. To this Müller's observation may be considered a reply. "Gudden's words

were a clear and decisive order. Had I disregarded the order and sent some one after them, and had the insane King provoked a scene, the blame would have been thrown upon me, and I should have taken upon myself the heavy responsibility arising from the disregarding of an order."

Müller quotes the testimony of Baron Washington, who warned Gudden of the danger of going out alone with the King. He affirms that Gudden was quite taken in by the apparent friendliness of the King, and that he laughed at their fears, which he thought overstrained.

They went out at 6.25, and at 7.30 Müller seems to have got alarmed, especially as it had been raining hard. What took place can only be inferred from circumstantial evidence. Grashey's theory is that Ludwig tried to persuade Gudden to allow him to escape, and that not being able to gain him over the King got excited and ran into the water; that Gudden overtook him and seized him by the coat, on which the King pulled the coat from him so forcibly as to tear his finger nail; that the King then threw off his coat, and, as Gudden still clung to him, he seized him by the throat with the right hand and struck him with his left fist on the face, and then held him under the water until he was drowned. There is no doubt that Gudden was drowned first, his footsteps could be traced on the sand of the lake up to 16 metres from the shore, where his footsteps were mingled with those of the King, after which the King's footsteps could be seen 25 metres farther. Beyond this there was the trail of the body, which had been washed by the current 29 metres northwards, the head being upwards and the feet dragging on the ground. The only question I would ask is, How did Gudden succeed in overtaking the King, and why did Ludwig throw off his overcoat and coat? Ludwig was 41 years of age, and very strong, and Gudden, though a vigorous man, was 21 years older; moreover, Ludwig, being the taller of the two, had an additional advantage in walking in shallow water. Both were said to be good swimmers. On the supposition that the King wished to escape by swimming, the difficulty is explained. He would naturally stop to throw off his coats, which would allow time for Gudden to make up to him. Of course, a man would not think of taking off his coat to sink more easily. That yielding to a new impulse he should then have destroyed himself is not contrary to experience. Müller says that the coats were found by the shore wetted through; Grashey says that they were found in the water, the arms

within one another. They found the bodies at eleven o'clock. The King's watch had stopped at 6.54. When found the rigor mortis had come on in both bodies. It would thus appear that the tragedy had taken place shortly after they had left the chateau.

This is the sum of what these two physicians have to tell us about this terrible event. That it should form the subject of a tragedy is not to be wondered at, it is a subject worthy of Æschylus. Klingner's drama is the first, but it will not be the last, written on the life and death of Ludwig Wittelbach. To judge from what has gone before, Germany may have many insane kings before she produces a historical dramatist like Schiller. We do not know whether Klingner's work has yet been produced on the German stage, and do not pretend to judge whether it is well adapted for that purpose. Taste is changeable, and audiences must be humoured. The author has evidently made himself acquainted with all the circumstances connected with the events. In portraying insanity he evidently clings to the time-honoured belief that it consists essentially in delusions. Ludwig is represented as intending to throw himself from the tower because he thinks he can fly, and his last words are, when drowning himself, "I shall be the lake-king! For the first time a true king! Bavaria, farewell! For the last time thy lake-king greets thee!"

Insanity has its own characteristics and limitations. This may do for the theatre, but it will not do for the Medico-Psychological Association.

Om Sindsbevaegelser et Psyko-Fysiologisk Studie af C. Lange. Copenhagen: 1885.

Ueber Gemüthsbewegungen, eine Psycho-Physiologische Studie; von Dr. C. Lange. Autorisirte Uebersetzung, von Dr. H. Kurella. Leipzig: T. Thomas, 1887.

This is an octavo pamphlet of 91 pages by Dr. C. Lange, Professor of Medicine in Copenhagen, and editor of the "Hospitals-Tidende," a weekly medical journal. Though the author thinks that the English word "emotion" is equivalent to his "sindsbevaegelser," literally mind-motions, we are not sure that this would bring out the same idea without further explanation. Dr. Warner's term "physical expression" is more exact. Dr. Lange proposes to examine the question, What effects have the emotions upon the bodily functions?

He seeks to arrive at a precise definition of what is an emotion. He puts in one group sorrow, joy, pleasure, anger, in another love, hatred, contempt, and wonder. The first group he calls emotions; the second passions or feelings. This classification is, perhaps, made more for the author's convenience than from any natural distinction. At any rate, some affections of the mind are less complicated than others, for example, terror is a simpler emotion than shame or envy. Dr. Lange observes that it seems as difficult to give a definition of a thing so purely subjective as an emotion as to define what is red or blue. As long, he observes, as men knew no more about colours than the effects they produced upon themselves the study of colours had nothing to do with science, but when Newton discovered the refrangibility of the rays of light the scientific study of colours began. In the same way the expression of the emotions eludes scientific inquiry until we take our departure from the study of their outward expression.

Dr. Lange goes on to describe the sensible effects of grief, pleasure, fear, anger, and, in less detail, of other emotions. Let us take a diminished outline of his picture of sorrow. It has a paralyzing effect on the voluntary muscles; the movements are slow and heavy, and there is an indisposition to exertion; hence the gait is sluggish and uncertain, with hanging arms; the neck is bent forwards and the head hangs; the eyes seem larger owing to the paralysis of the orbicular muscle, but the upper eye-lid droops a little. On the other hand, there is a contraction of the involuntary muscles which especially implicate the muscular fibres of the walls of the vessels; hence the paleness of the face. The voice is weak and husky on account of the diminished power of the vocal muscles. The person a prey to sorrow is generally depressed and silent. In women the secretion of milk is stopped; on the other hand, the secretion of tears is much increased, save in very great grief. The contraction of the fine vessels of the lungs causes oppression of breath; one feels as if he would burst for sorrow. If the grief lasts long there is a deficiency in the blood supply. The early appearance of greyness in the hair, or baldness with furrows in the forehead, he treats as the result of atrophy, and thinks that this atrophy extends to the internal organs, especially to the kidneys. Hence people who live sad lives die early. In fear the symptoms are analogous, only they are more decided. Joy and anger belong to another group. Instead of contraction we have widening of the smaller vessels. In the

angry man the face flushes, even the eyes become red; no doubt the vessels of the brain are also enlarged, there is a widening of the veins, and notably the veins of the forehead swell.

"Ora tument ira, nigrescunt sanguine vena."—Ovid.

This Dr. Lange considers to be owing to some impediment to the return of blood to the heart or to the pulmonary circulation. There is an increased innervation to the voluntary muscles, with diminished co-ordination. The angry man feels a desire to be moving, takes long steps or bounds. Instead of shunning others, like the melancholy man, he seeks his fellow-men in order to vent his rage upon them. These, of course, are generalized pictures. Sometimes in grief the subject is restless and agitated, and instead of the voice being weak and without tone it has an unusually pathetic power; on the other hand, some people become pale with anger, or, perhaps, that is the variety which takes the form of hatred. In some people the effects of passion do not seem to extend to the brain so much as others, for there are men who, though they show lively manifestations of anger, or joy, or embarrassment, never seem to lose their wits as others do.

Dr. Lange has a much more difficult task when he seeks to explain the connection between these manifestations of passion and the feelings themselves. He, while doing justice to the power of observation shown by Darwin in his book "On the Expression of the Emotions," considers that the great naturalist has set out from a totally wrong standpoint. The changes observed by Darwin during passion are associated phenomena, many of them having no causal connection with the passions themselves.

Dr. Lange points out how different emotions may be evoked by material agencies. Wine produces gladness, often ending in combativeness; the old Berserkers brought on a transitory fury by the use of certain kinds of mushrooms (fluesvamp); antimony and ipecacuanha induce a depressed condition that has much similarity with the effects of fear. He observes that the power of cold water to cause diminution of angry fury can scarcely act on the soul, but upon the vaso-motor functions. Then we see individuals who fall into a state of melancholy although there is a complete consciousness of the absence of all mental causes for sorrow. On the other hand, we have mental states of insane joyfulness, as shown in the early stage of general paralysis.

Dr. Lange observes that in bromide of potassium we have a medicine that has a paralyzing effect upon the vaso-motor apparatus. Through it we can induce a condition of apathy in which the individual cannot be either glad, or annoyed, or sorrowful, or angry, because the vaso-motor functions are suspended. The difference, he observes, between a fungus-intoxicated Berserker, a maniac, and a man who has suffered a mortal affront consists only in the difference of the causes and the consciousness of what these causes are or the want of knowledge of any cause. Drinking wine induces a feeling of *bien être*, in which the individual is disposed to receive pleasurable emotion, but in the joy following the reception of a piece of good news the idea itself causes the pleasurable affection. Such ideas are accompanied by a wave of excitement which may pass to the whole body. This was pointed out by Alexander Bain thirty years ago in his book on the "Emotions and the Will."

Dr. Lange observes that it is the vaso-motor system which we may thank for the whole emotional side of our mental life, our joys and sorrows, our happy and unhappy hours. Had the impressions through our senses not the power to put the vaso-motor centre into action we should wander through life without passion and without interest. All impressions from the outer world would only enrich our experience and increase our knowledge without rousing us to pleasure or bending us to sorrow or to fear.

Surely this is assigning too much to the influence of the sympathetic system. No doubt our feelings would be materially modified if no wave of excitement radiated from the brain during an emotion, but even if the blood vessels were only elastic tubes with no contractile fibres, pleasurable and painful impressions would still be transmitted through our senses to the brain, pleasurable and painful ideas would be evoked, and there would be desire, hope, and fear. Even if the sympathetic system lost its function in whole or in part, the primary nerve-cell and fibre and the primary idea would remain, even if no outward manifestations were visible.

Dr. Lange remarks that it is a tendency of education to diminish the power of the emotional reflexes. In fact, the civilized man tries to turn the excitement of his brain into words and actions. Dr. Lange considers that in the course of generations the emotional activity of the sympathetic system will be lost, and our descendants will reach the ideal man of pure reason of Kant, who regards every affection,

every pleasure, or sorrow, or terror, if he ever feels such temptations, as an unseemly disease or mental derangement.

We trust that enough has been said to show that Dr. Lange's treatise is a work of importance. It is full of learning, close observation, and acute analysis. As Danish is but little read on this side of the North Sea, those who desire to study the work will be glad to avail themselves of the German translation done by Dr. H. Kurella, which is both clear and faithful to the original. Dr. Kurella has also made his knowledge of Danish of general benefit by publishing in the "Archiv für Psychiatrie" (Band xix., Heft 1) a translation of another work upon a similar subject, "Studies upon the Central Cause of the Vaso-Motor Nerve Tracts."

Intracranial Tumours. By Byrom Bramwell, M.D., F.R.C.P.E., F.R.S.E. Edinburgh: Young J. Pentland, 1888.

When we take up a work by Dr. Bramwell we expect it to be characterized by thoroughness, clearness, and excellence of illustration. Very careful perusal of this book on intracranial tumours has not disappointed us in any of these respects. It is based on lectures delivered to students, and, although the style throughout is that of the lecture-room, there are none of those crudities and vain repetitions which so frequently distress readers of published lectures. The illustrations are numerous and admirable, and as they are nearly all original they must represent an immense amount of painstaking work. But this is a prominent feature of the book. Every page gives evidence of most careful clinical study, combined with extensive research. If all lectures delivered by professors and teachers in the Edinburgh Medical School are as thoroughly satisfactory as these, the students are to be congratulated on advantages enjoyed only occasionally elsewhere.

To the psychologist there is no special feature of interest; the work is a contribution to the study of one department of nervous diseases; but as the psychologist should be a thoroughly cultivated physician, he will find here much to interest him, and though he may feel disappointed that several of the puzzles which have troubled him so long seem no nearer solution, he may experience some consolation in observing that many points formerly ignored are now attracting minute attention. Progress during the past

twenty years has been so decided that we are surely justified in believing that it will continue, and at last enable us to understand much that is at present inexplicable to most men; for we must remember that there are some people who profess to understand everything, and succeed in deceiving the simple by a deluge of words.

It would serve no useful purpose to pass in review the eleven chapters of which the book consists. No important topic is omitted, and Professor Hare contributes an article on the surgical treatment of intracranial tumours.

This contribution to scientific and clinical medicine will still further advance Dr. Bramwell's reputation as a physician and author. It is a first-rate book, admirable in every respect.

Evolution and Dissolution in Disease. By C. Pitfield Mitchell. Longmans, Green, and Co., 1888.

The purpose of this book we must give in the author's own words. It is, viz., "An attempt to co-ordinate the necessary facts of pathology, and to establish the first principles of treatment."

The claim upon our consideration of an attempt such as this is a serious one, for, in view of the progressive accumulation of facts in medicine—an accumulation exceeding our powers of storage—we shall welcome very warmly any system which will help us to bring these facts together, and so make them more available.

The aim of the author is to apply to pathology those principles which have been established in the physical sciences, and which have already been applied with so much success in the interpretation of the laws of life by Herbert Spencer. Two formulæ, viz., the formula of dissolution, and the formula of evolution, each, as stated by Spencer, are then brought to bear on the facts of pathology, and, by the author, are found adequate to co-ordinate them. Mr. Mitchell travels over the whole range of pathology—inflammation in all its stages and in all its issues, the degenerations, new growths, malformations; then, in a separate section, special disease, which is made to include the diseases of the different systems of the body, and the diseases of the whole body, *e.g.*, the fevers. To each and all of these the above formulæ are applied. With this the chief part of the work is completed, but in a concluding part, headed Implica-

tions, some important points in ætiology, with suggestions as to treatment, find consideration. This concluding part, though small, must, by the practical, be held to measure the rest of the work.

To examine more in detail. The formula of dissolution which the author quotes, and which, to readers unfamiliar with Spencerian phraseology, may sound very cumbrous and obscure, may be illustrated with advantage by an example:—When the sword or axe of the Frank broke in pieces the Soissons vase, and when, in turn, the axe of Chlodowig broke in the offender's skull, physically speaking we may interpret the events as follows:—The incidence of the blow on the vase or skull, the disappearance or spending of the force of the descending weapon, and the disintegration of a more or less complicated structure. It will be simpler to confine our attention to the case of the vase. The blow has fallen, its force has been spent in bursting the structure of the vase, indeed, its force has appeared in part, at any rate, in the flying fragments, and structure (the vase) has given place to relative absence of structure (the heap of fragments). The question before us is: may we see underlying the complexity of a pathological process a simplicity like to the above? To believe in an affirmative would be delightful.

Mr. Mitchell, taking inflammation in the first instance, selects a diagram from Ziegler, and he points to the picture of the inflamed parts, as exhibiting a condition which may be described as active disintegration. The vessels, from being contracted, have become dilated, and the tissues are becoming invaded by a host of cells, both white and red, which are flying, as it were, from a centre, instead of keeping to their orderly movements along prescribed paths. The picture is, in truth, very like a disintegration—the giving way of structure to the relative absence of structure; and this becomes still more apparent if we follow up the process to the production of an abscess, in which stage we have exchanged the complexity of the tissues for the simplicity of a cluster of white cells, floating in a liquid. So far as the process is considered in its results it may be said to conform strictly with the formula of dissolution. The part which has become the seat of inflammation has, indeed, passed "from a definite, coherent heterogeneity to an indefinite, incoherent homogeneity;" and, at the same time, the complex functions of the part have been replaced by relative absence of function. But this degradation of structure, and

of function, is not the whole of the formula of dissolution, for the formula states that there is a "concomitant absorption of motion," and it implies that this absorbed motion is the cause of the above dissolution. In the case of the Soissons vase, none can deny that this is the case, for the loss of form and of function (its power to hold water or wine) was caused by the blow of the axe. But when we examine inflammation is this so? Mr. Mitchell answers yes, and he sees, in the various causes of inflammation, always the absorption of an excess of energy, *e.g.*, in the influence of heat, electricity, mechanical irritation, chemical agencies. But we think that the statement that chemical excitants of inflammation act always by the giving out of energy requires proof, and we believe that the proof will not be forthcoming. Still more difficult will it be for Mr. Mitchell to show how cold acts as a cause of inflammation, and here we do not mean merely that cold which acts on the tissues by prolonged starvation, by prolonged anæmia, but also that cold which in its intensity may at once be followed by the inflammatory process. Why, indeed, the abstraction of an excess of energy should not be as effective in destroying the vitality of a part as the absorption of an excess of energy, and should not thereupon be followed by inflammation, we do not see. True, in the former case, the formula for dissolution is no longer applicable; but is it applicable even in those cases where absorbed energy excites inflammation? The author sees in the altered movements of the fluids and corpuscles in the inflamed part the *equivalent* of that absorbed force which started the inflammation, much as in the disruption of the particles of the vase the energy of the blow of the axe was to be sought, but in reality there is no such equivalence in the case of the inflamed part. If an india rubber ball be distended with air and you prick it there will be no equivalence between the force of the prick and the energy let loose in the escaping air. Just as little will there be equivalence between the escape of fluids and corpuscles whose motions have been under restraint, and the force which removes that restraint.

These objections to the application of the formula *in its completeness* have struck us forcibly, and they recur in some of the subsequent chapters on the retrograde metamorphoses, etc.

The chapter on neoplasms is a complicated one, and some of the suggestions appear somewhat hazarded, *e.g.*, the relationship between the origin of growths in tissues and

the distance of those tissues from the centre of the circulation. Mediastinal tumours are not uncommon, yet they arise near the fountain head!

In the chapters on special disease we find much that is very suggestive. The statement that the degradation of an organ in its structure and function occurs in the reverse order of its evolvement, *i.e.*, that the more elaborate mechanism and function are the first to disappear in disease, as in health they have been the last to appear—this, probably, is profoundly true. Then, again, the mode of origin of the scleroses is very admirably discussed.

Part III, headed Implications, is a very short section of the work, but it summarizes very clearly the main propositions contained in the two preceding sections; and, at the same time, it discusses some points in ætiology of cardinal importance. The question of heredity is really very ably handled, though we must dissent from some of the reasoning. This part will well repay careful reading. We would willingly do battle with Mr. Mitchell as advocates of heredity in the matter of predisposition, for whilst we do not believe that diseases are handed down as entities, yet we are convinced that there are two parts concerned in disease—the exciting cause, or that which *acts,* and the organism, or that which *reacts,* and that the one is as essential as the other. Will not the organism, as a more or less favourable field for the play of external forces, be subject to heredity?

But we may not fight this out, and we would only add that Mr. Mitchell's book is philosophical in its conception, and that it is well planned. It will incite the careful reader to much profitable reflection. It is a little to be regretted that the language is not as simple as it might be. Amongst the subjects considered we would specially single out the section dealing with special disease, and from the concluding section (Implications) the subjects—heredity and organic equilibration.

Whence Comes Man: From "Nature" or from "God?" By Arthur John Bell. London: Isbister, 1888.

Mr. Bell's work is an attempt to solve the great problem of the origin of existence. He first selects Professor Flint as the representative of theism, raises the same objections to the arguments from efficient and final causes as Kant, and pushes them with a good deal of shrewdness. Having satisfied himself that philosophical proof of the existence of a

God is not to be obtained, he proceeds to inquire for physical proof, which he considers he has found by showing that life cannot have been evolved from non-living matter, but must have been a new creation. The way in which he does this by a critical examination of Spencer's, Huxley's, and Tyndall's works is the ablest, as it is the most considerable, part of the book. The creation of life being thus established, the author concludes that inorganic nature must have been also created, although no direct proof of this appears to be offered.

This is the main result of the book, which, of course, incidentally travels over almost the whole of physical and metaphysical science. It abounds in curious speculation, such as an ingenious attempt to prove that the sun is a machine for perpetual motion, and the theory that space is infinite and necessarily existent, and therefore a manifestation of God to us. It is interesting to see the opinion of Samuel Clarke revived in this century.

Sulla Alimentazione Forzata Dei Folli Sitofobi. Del Prof. V. L. Cera. Napoli, 1888.

This is a small volume on the refusal of food, and forcible feeding of the insane by the senior assistant of the asylum for the Province of Naples. The different conditions which lead to refusing food are clearly laid down, sufficient stress being hardly, in my opinion, laid on the most difficult to overcome—hypochondriacal delusions. The author's main object is, however, to introduce to our notice a feeding-apparatus he has gradually perfected. He began by using the nasal sound alone, a catheter of the pattern known as Nélaton's. To this he adapted an ordinary enema-pump, which he has developed into two air-tight glass vessels—one for food, the other for drink and medicine—which can be emptied by the pump attached, and filled as required. I do not give a more detailed account of the instrument, which is ingenious, because I fear that its complexity and price would prevent its being used in this country, where the tendency is to prefer the most simple apparatus. It can, however, be seen by anyone interested at the Italian Exhibition in London. The volume ends with a collection of cases in which the machine was successfully employed.

PART III.—PSYCHOLOGICAL RETROSPECT.

English Retrospect.

Asylum Reports for 1887.

Belfast.—There is a deficiency of accommodation, especially for males. How this is to be met is still under consideration. The Lunacy Inspectors recommend an addition for at least 300 persons, and that the new building should not be erected in the grounds of the present asylum, but in the country, and be reserved for the treatment of chronic cases.

Dr. Merrick reports :—

The 627 cases given above as the total number resident includes 82 harmless and chronic cases resident in the Ballymena Workhouse.

It may be thought that such a sentence could only come from Ireland, though, to be strictly just, the grammatical error cannot be regarded as purely national.

Cheshire. Chester.—The average weekly cost is only 7s., and the charge to the unions 6s. 5d. per head. We hope that a considerable increase in the charge will be made next year. Although the asylum appears to be in excellent order, Dr. Davidson would probably be the last to maintain that it has reached perfection. Any real advance in asylum administration must cost money.

In 10 out of a total of 61 deaths phthisis pulmonalis was either the primary or secondary cause.

Cheshire. Macclesfield. Although the weekly cost was only 7s. 10d., complaint has been made by a Board of Guardians as to the excessive cost. Dr. Sheldon devotes some space in his report to this most uncalled for discontent. We most earnestly hope that he will not be intimidated by such proceedings, but will administer his asylum in a liberal and intelligent spirit, always remembering that asylum management must be progressive, and that no real advance can take place if the one idea (and it is unfortunately the chief one in this gold-worshipping country) is to do everything as cheaply as possible.

The deaths numbered 49, and of these 16 were due to phthisis pulmonalis.

Earlswood.—This great institution appears successfully to continue its good work amongst a very helpless section of the community.

Large additions to the sanitary arrangements have been made ; and that they were necessary is evident from the fact that a serious outbreak of diphtheria occurred, affecting 42 males and 16 females.

Many changes occurred in the staff. These include the resignation of Dr. Cobbold, who has been succeeded by Dr. Robert Jones, a former assistant medical officer.

Kent. Barming Heath.—A male attendant was prosecuted and

fined for stealing food provided for the patients. Concerning this occurrence Dr. Davies says :—

This case is noteworthy, as the most important witness was and is a patient here. Though hopelessly insane upon many points, upon others this man's word is, in my opinion, perfectly reliable. I gave my evidence upon this point at the local Petty Sessions, and the Magistrates being satisfied that the patient understood the nature of an oath permitted him to be sworn. But for this I do not think we could have obtained a conviction in this case.

The deaths numbered 131, and of these 17 were due to some form of phthisis.

Kent. Chartham Downs.—A detached hospital has been erected. Of it Dr. Spencer says :—

It is well suited for its purpose, being independent of the main building, and complete in itself, containing its own kitchen, detached laundry, fumigating closet, and mortuary, day-rooms and dormitories, apartments for attendants, etc. It can be divided into two distinct parts for the two sexes ; it is very cheerful in position and arrangement, and, when not required for its special purpose, it is intended that it should be occupied by men engaged on the garden and farm.

Of the 73 deaths during the year 15 were due to phthisis pulmonalis.

Limerick.—During the last three years the number of admissions has gradually decreased. Dr. Courtenay directs attention to the extreme mental depression which is nowadays characteristic of so many cases of derangement, and so different from the wild excitement of former years. He also remarks on the comparatively small number of cases suffering from the grosser forms of cerebral disease in the district, if not in all parts of Ireland.

In former years a distinguished editor of this Journal used to ridicule the inelegancies and grammatical blunders to be found in the official reports of the English Commissioners. No doubt his sarcasms were in very many cases richly deserved ; but what amount of ridicule can sufficiently chastise the extraordinary blunders to be found in the reports made by the Inspectors on this asylum?

Forty-seven deaths occurred during the year, and of these 23 were due to phthisis.

Mavisbank. Edinburgh.—The following paragraph is from Dr. Keay's report :—

Voluntary patients are not registered as lunatics. They are admitted without certificates or Sheriff's order, and can discharge themselves at any time on giving the Superintendent three days' notice. The extent to which voluntary residence has been taken advantage of is good practical evidence of comfortable quarters and liberal treatment. By this simple mode of admission many persons avail themselves of asylum treatment, in whose cases registration as lunatics would be inexpedient or disagreeable. A noteworthy case occurred last spring in that of a gentleman suffering from mental depression, who came to the institution accompanied by his wife and daughter. They were all admitted as voluntary inmates. The two ladies assisted to nurse the patient, who made a good and rapid recovery. When the family party left the asylum it was with many expressions of thankfulness. Although it is, as a general rule, of the first importance to remove the patient suffering from mental derangement early from home, and to place him in a well-ordered asylum, yet I am convinced that

there are many cases, especially of melancholia of a mild type, occurring in men of middle-age, in which the separation from loving friends is a very severe trial, and that the assistance of such friends, if properly directed and guided, might be made a valuable aid in treatment.

Every effort seems to be made to induce the men-patients to employ themselves.

Monmouth, Brecon, and Radnor.—The estate is about to be enlarged by the purchase of 60 acres of land.

Only three of the 56 deaths during the year were due to phthisis.

Montrose Royal Asylum.—Provision is being made for an infirmary for 100 patients, quite distinct from, and to the west of the main building, and between the latter and the Physician-Superintendent's house. Through the courtesy of Dr. Howden, we shall be able to give a reduced plan of this building in the next number of the Journal.

Mullingar.—In his report Dr. Finegan says :—

I much regret that three cases died within one month of coming under treatment; two of these, however, who sank a few days after admission, might be deemed in a dying state on arrival at the asylum; and it is a grave question whether their transfer here under the circumstances was the most judicious procedure. No doubt (mens insana in corpore insano) the majority of cases sent to an institution of this kind are in feeble health, but magistrates or certifying medical men ought, when at all feasible, to draw the line of demarcation in the interest of humanity, and spare their delirious patients the additional pang of dying within the portals of a lunatic asylum.

We trust that Dr. Finegan will forgive us for pointing out that his advice to magistrates and medical men would have been much more valuable if he had strongly urged the necessity of sending cases, and especially delirious ones, in the early stage of the disease. Acute cases die, as a rule, from exhaustion largely due to want of food, and such cases, if sent in time to an asylum, are amongst the most favourable for treatment.

The staff has been increased by the appointment of five attendants, including a chief attendant, and a plumber. That is a decided step in the right direction.

An unfortunate occurrence, the birth of a child by a woman who had been three years in the asylum, shows how carefully the relation of the sexes should be guarded. Although it was sworn that at no time was the woman alone for more than ten minutes with the father of the child, we all know how much mischief can happen in that time, and it cannot be denied that proper discipline forbids the possibility of such accidents by never allowing a female patient to be left alone with one of the opposite sex. A nurse neglecting strict obedience to this rule should be instantly dismissed.

This asylum is much over-crowded, and additions and alterations are under consideration. The proposals made by the Committee seem insufficient in the circumstances.

It is very creditable to the energy of Dr. Finegan that the cause of death was verified in every case by post-mortem examination.

Murray Royal Asylum, Perth.—Dr. Urquhart is doing excellent work in erecting additional buildings for the acute cases and the sick

of both sexes, for which, in his opinion, there exists clamant need. That this need is met by the rooms so carefully and skilfully planned by this æsthetic Physician-Superintendent, will be acknowledged by all who inspect them. At a future time we shall describe them in detail. The rooms are built on one side of the corridor only. They are heated by steam, with modern improvements, which meet the objections urged against this system.

Newcastle-upon-Tyne.—The recently built wards are now occupied. The asylum is now in telephonic communication with the city fire brigade station.

Concerning general paralysis Dr. Wickham remarks :—

There is thus no diminution in the number of cases treated here as suffering from this disease. There is, if anything, a tendency to increase amongst women, and the cases generally speaking seem to be assuming a more violent and unmanageable form. There is perhaps no more difficult case to control than an excited general paralytic. I have been making some observations recently on a kindred subject, and I have been much struck with the readiness with which they are marked when an effort is made to hold them ; and this is especially the case when the syphilitic taint may be suspected. It is difficult, however, to get the relatives to understand this.

The total deaths numbered 20, and five of these were due to phthisis.

Northampton.—A new block for idiot children is nearly completed. The estimated cost is £3,500. A detached hospital has been furnished, and is at present occupied by 25 harmless and convalescent patients.

Concerning the open-door system Mr. Greene reports :—

Of late years, what is known as the open-door system of asylum management has been highly praised by Medical Superintendents of Scotch Asylums. It is stated that this system conduces to the contentment of the patients ; that the possibility of easily getting out of the asylum does away with the wish to escape, and that it removes the last of the many forms of restraint common to a by-gone age. The system was begun very cautiously in this asylum three years ago, and since then it has been gradually extended, until at the present time all the day-rooms, except one on each side, are left unlocked by day. The escapes were fewer than in former years. Probably this is a mere coincidence, but certainly no inconvenience has resulted from the unlocked doors. There is always something prison-like in the grating noise of a key in a lock, and to banish everything prison-like from an asylum must ever be a change for the better if it can be carried out with safety. Without expecting too much from the innovation, it is reasonable to suppose that many patients, especially the more sensitive ones, dislike being locked in their sitting-rooms, even if they never complain of it; and the more the asylum can be made to resemble a home the greater will be the probability of such cases settling down and deriving benefit from the treatment.

Of the 86 deaths during the year 11 were due to phthisis.

Northampton. St. Andrew's Hospital.—The estate has been enlarged by the purchase of 40 acres. This hospital continues its benevolent work, and we are glad to find that Mr. Bayley perseveres in his endeavours to find suitable employment for patients of each sex. We only wish a larger proportion of patients were indigent.

Northumberland.—The additions to this asylum are now occupied, and are favourably reported on.

In his report Dr. McDowall says :—

In connection with the nurses and attendants and their duties, I may mention that, adopting a plan followed by the superintendents of some other asylums, I have formed weekly classes at which I have explained in detail the special character of their work, the things they should attend to, those they should avoid, and have done my best to impress on their minds the responsibility of their work. I hope and believe that these meetings have not been fruitless, but that both men and women have profited by the advice and instruction given them. Following up this I intend to instruct them in ambulance work and a few in nursing.

In former reports, and frequently on other occasions, I have dwelt on the special trials, difficulties, and temptations of attendants, and have pointed out how some of these might be removed. I have always maintained that the first step for the amelioration of their lot is the shortening of their time on duty, the provision of means of rational and innocent amusement, and increased attention to their comfort. From time to time some minor changes have been introduced here, and these have doubtless proved beneficial; but the more important matter—diminution of hours on duty—has not advanced as far as I hope to see it do. This urgent reform in asylum administration can only be carried out when public opinion has been educated up to it, and it is of infinitely more importance than all the so-called reforms contained in the proposed Lunacy Act.

We commend these remarks to the serious attention of asylum superintendents. Anyone who will devise a method by which the amount of leave accorded to attendants is increased will have introduced a most important improvement in asylum administration.

Thirty-two deaths occurred during the year, and of these nine were due to phthisis pulmonalis.

Norwich.—In their report the visitors say :—

We have always laid down as a principle that the attendants should work with the patients, and not stand over them as taskmasters.

This is as it should be, and as it is in all well-managed asylums.

This asylum is still without an assistant medical officer, but it is stated :—

In deference to the expressed wish of the Commissioners in Lunacy, your Committee have made provision whereby the Medical Superintendent is enabled to take more change and temporary rest from his onerous duties.

Thirty deaths occurred during the year, and of these only two were due to phthisis.

Nottingham (*Borough*).—A new wing is in process of building, and 20 acres of gardens have been added to the estate. The new buildings are to be ventilated and warmed by Blackman's "propellors." These are in use at Broadmoor, and are said to be successful.

No death was due to phthisis.

Nottingham (*County*).—In connection with a suicide, the Commissioners say :—

We have learnt that the actively suicidal patients, though they sleep in the supervision dormitory, are not by day placed together in the same ward, as is frequently, if not generally, done. We think this the safer practice, as the attendants of the selected ward have thereby their attention quickened, and are, when properly chosen, more careful and watchful.

Eight of the forty-eight deaths during the year were due to phthisis.

Nottingham Lunatic Hospital.—At a cost of £350, the building has been further protected from fire by placing an 8-in. main with hydrants, etc.

The Commissioners recommend that actively suicidal patients should sleep in observation dormitories, and not in single rooms with an attendant on duty outside.

Oxford.—The kitchen and laundry arrangements have been improved, and some sanitary defects remedied.

Fifty-one deaths occurred during the year, and of these 23 were due to "disease of lungs." With much advantage the various forms of pulmonary disease might be given.

Portsmouth.—There is really nothing calling for notice in this report. Mr. Bland's contribution consists of barely four pages, and of these nearly two are occupied by tables showing the chargeability of the patients in the asylum, and the causes of death. A less instructive report it would be difficult to imagine.

Fifty patients died during the year, and in eleven the death was attributed to phthisis.

Richmond District Asylum.—Although the death-rate has been much reduced, the sanitary condition of this asylum is far from creditable. It is, therefore, satisfactory to find that Dr. Norman has obtained the consent of the Board to most extensive alterations and improvements in the drains, etc., at an estimated cost of £12,000. One hundred and twenty-three deaths occurred, and included 15 from dysentery, 3 from diarrhœa, 47 from phthisis, 2 from typhoid fever, 2 from acute tuberculosis, 1 from erysipelas. No fewer than 136 cases of dysentery were under treatment during the year.

The male side is much over-crowded, and immediate consideration must be given to the means of providing accommodation. Other subjects requiring attention are brought under the notice of the Board by Dr. Norman, who is to be commended on the manner in which he exposes the structural defects of the building.

The schools, which have been so long a distinctive feature in this asylum, have been carried on as usual during the last year. There can be no doubt of their beneficial effect, but greatly increased advantage could be obtained if industrial occupation were introduced as part of the school organization. Some trials have been made in that direction, and further developments will be attempted.

We are much pleased to learn this, for we have always been of opinion that for an incurable lunatic it is as important for his own happiness and health that he should be able to delve in the garden or even black his boots as that he should be able to enumerate all the capitals in Europe.

St. Luke's Hospital.—The drainage, which was reported to be very defective, if not actually dangerous, has been entirely reconstructed on the most modern and approved sanitary principles, at a cost of upwards of £520.

The following paragraph is from the medical report :—

In our last annual report we referred to the fact that there seemed to be a steady diminution in the number of admissions, doubtless referable to the un-

willingness of the friends of patients, as well as their medical advisers, to assume the responsibility of executing the forms required by law before treatment can be adopted. We have to record the continuance of this unwillingness, as evinced by the still further reduction of admissions, and cannot but lament that further difficulties are contemplated in the way of prompt treatment by more stringent laws in reference to the admission of patients.

Salop and Montgomery.—We cannot conceal the opinion that the Visitors have not earned our respect by their conduct in connection with the improvement of the sanitary arrangements of this asylum. As the result of most painful experience, Mr. Field was consulted. He made certain recommendations, and his report was forwarded by the Committee to Quarter Sessions. It was referred back to the Committee with the request that the Visitors should ascertain whether the objects in view could not be obtained without so large an expenditure. "In deference to it, the Visitors decided to abandon Mr. Field's plan for the reconstruction of the drains, owing to the large estimated expenditure." This cannot be regarded otherwise than as a most foolish and damnatory admission, and the Commissioners express unqualified disapproval of the action of the Visitors.

No fewer than 260 patients are usually confined to the airing-courts. This number should be decreased, and the number of examinations after death increased.

The following paragraph occurs in Dr. Strange's report:—

Among the patients who in an asylum are non-workers there are a certain number who are willing, but are not generally to be trusted, by reason of their melancholic and suicidal tendencies, with a large gang of men. I have instituted a small party of this class, never more than six, placed under the care of a trustworthy attendant, and sent them out to work by themselves. I think the effect has been good; they are generally good workers, and certainly benefit by the occupation. I should be very glad, if the staff permitted of it, to increase the number of these small gangs, as I am sure there is no class who benefit more by employment than those suffering from melancholic or acute insanity. I need scarcely say that the selection of these patients requires great care.

The very next paragraph is a singular appendix to the above. It is as follows:—

It is a matter of congratulation, both to the Visitors and to myself, and must be so to the ratepayers, that we have been able again to reduce the rate of maintenance. In December, 1886, it was reduced from 8s. 9d. to 8s. 4d., and now from the 1st of January we have been able to make a further reduction to 8s. This is the lowest weekly cost ever attained at this asylum.

What do these paragraphs mean? Shortly, this—and we congratulate Dr. Strange on his honesty in committing to writing what many other men do but are ashamed to acknowledge—that in order to effect an economy, the staff is not sufficient to attend to the employment of patients who would be benefited thereby. Is this right? Is it even economical in the end? No; and words cannot too strongly condemn such a system. We would urge Dr. Strange at once to obtain the necessary number of attendants, so that all patients capable of employment in the open air may not be denied that form of treatment.

Sixty-nine deaths occurred during the year; of these 12 were due to phthisis pulmonalis and one to tubercular peritonitis.

Somerset and Bath.—Several new workshops have been built; some are occupied, others nearly ready, and others are about to be begun.

Dr. Wade reports a pronounced increase in the number of general paralytics admitted. During 1887 there were 16 males (not including two doubtful cases) and three females. In the ten years previous to 1881 such admissions only averaged five per annum of both sexes, but during the last seven years they have averaged twelve.

In connection with the death of a patient from injuries sustained previous to admission, Dr. Wade makes some remarks worthy of attention. He says :—

J. S. was taken to the workhouse under the provisions of the Lunacy Acts Amendment Bill, 1885. By this Act, a constable, relieving officer, or overseer may take a lunatic without any order, under certain conditions, to a workhouse, where he may be detained for three days, before the expiration of which time the alleged lunatic must be taken before a Justice of the Peace. Such Justice of the Peace has, by the same Act, power to remand the lunatic to the workhouse for a period not exceeding fourteen days. Now the points to be observed are these: 1st, when the alleged lunatic is, under Sec. 2 of this Act, first brought to the workhouse by the constable or other officer, the Master of the Workhouse is only bound to take him in if *there is proper accommodation* for such alleged lunatic; and, 2nd, the Justice of the Peace who remands the alleged lunatic to the workhouse, under Sec. 3, is bound to satisfy himself that there is proper accommodation in that workhouse.

Now, it is not too much to say that there are outside the Bath Union not more than one or two other workhouses where such proper accommodation exists in the county of Somerset.

Clearly, then, the Act of 1885 can only be used to a very limited extent in this county. And care must be taken both by Masters of Workhouses and Justices of the Peace that lunatics are not received into or remanded to workhouses when such proper accommodation is not provided, and it is, I think, the duty of masters to refuse to admit lunatics when the conditions of the Act are not complied with.

But whether the Act should not have gone further, and compelled the Boards of Guardians to make some provision in each workhouse for the temporary detention of lunatics is another matter. Undoubtedly there is the great question of expense; but on the other hand, when it is remembered that some patients have to be brought a distance of over 60 miles to this asylum, it is most important that in each locality there should be some place where a lunatic could be detained under treatment for a few days, either in case of the patient's health being in such a state as to render removal inadvisable, or when a delay may have taken place, as must often be the case in country districts, in obtaining a Justice's order.

Eighty-five deaths occurred during the year; of these ten were due to phthisis pulmonalis and one to acute tuberculosis.

Staffordshire. Burntwood.—It is not often that we hear such views expressed as in the following sentences by Dr. Spence, and we heartily agree with them :—

The admissions from the workhouses of helpless chronic cases requiring much special care were not few. Complaint is frequently made that asylums should be hampered with these cases, but, for my part, I rejoice to think that the means placed at our disposal for nursing and caring for such poor and afflicted sufferers are happily and beneficially employed in lightening the burden of their troubles,

and soothing their last days in a world that has not, as a rule, proved a very tender stepmother to many of the class from which these patients are usually derived.

Concerning suicidal patients, we do not see the subject as he does. Whether a patient should be considered suicidal is one of the most responsible subjects to be decided by an asylum medical officer; but it should be decided on its merits, and no one can object to extreme caution being exercised in such a case, but caution should not degenerate into cowardice.

How we are to provide facilities for the continuous day and night supervision of patients with suicidal tendencies is becoming a matter of serious consideration, owing to the number of those who are returned by the Relieving Officers as disposed to self-destruction, the foundation for the statement being in many cases merely a desire on the part of the union official to cover himself in case of any casualty occurring. That this is the only ascertainable ground for attributing suicidal tendencies to many of our patients is frequently found to be the case when we come to make close inquiry into the previous history of our admissions from those who are in a position to know all the facts relating to them. Once suicidal always suicidal seems to be a necessary rule as long as a patient remains in an asylum, if one desires to avoid the hackling usually administered when—as will occasionally happen—a successful attempt at suicide is made by possibly one of the most unlikely of the branded individuals.

There is much truth in Dr. Spence's remarks as to the reported number of recoveries.

One cannot help feeling that perhaps too much has been made of the number of patients said to be cured of their insanity. When the men and women discharged from asylums as recovered are followed to their homes, and their subsequent career carefully noted, it is, unfortunately, too often found to be the case that relapses take place, not sufficient, perhaps, to render confinement necessary, but enough to incapacitate the individual from satisfactorily pursuing the occupation to which he was formerly accustomed. That this occurs more frequently than the statistical tables (which are so abundant and so misleading) would indicate cannot be denied by anyone who takes the trouble to inquire diligently into the matter; and although it may at first sight be a very sad and disheartening view to take of the life-work of those engaged in caring for the insane and feeble-minded, we must

> "Be content, in work,
> To do the thing we can, and not presume
> To fret because it's little."

Fifty-seven patients died during the year; in 13 cases death was due to phthisis or some tubercular affection.

Staffordshire. Stafford.—It must be a matter of much regret that Mr. Pater lived so short a time to enjoy his pension. Dr. Christie, his successor, seems to have made a successful beginning in his new sphere of work.

Only 12 were due to phthisis out of a total of 93 deaths during the year.

Suffolk.—The new accommodation provided is reported to be very good; but the asylum is again overcrowded. It is believed that the

health of patients and attendants has suffered from want of sufficient cubic space.

In his report Mr. Eager discusses at considerable length the removal of harmless lunatics to workhouses. Concerning suicidal patients he most truly says :—

There has been a large number of suicidal patients treated during the year, and I think we may feel well satisfied that it is finished with only one successful attempt. Indeed, the numbers actively suicidal seem to increase in this asylum year by year. A suicide so often calls down so much blame upon an asylum physician that I think he is often likely to be tempted to take less risk in the management of these cases than is for his patients' good. The suicidal patient very often has almost the normal appreciation of what is agreeable and comfortable, but has not that inward content which enables one to make the best of disagreeable surroundings. If every opportunity of self-injury is taken away from such a person, none of the occupations, amusements, or comforts of life are left, and real woes are added to his imaginary ones, whilst nothing remains for him to do but to brood over them. The asylum, therefore, where there is no *chance* for suicide, for escapes, or such like occurrences, is, I should say, scarcely to be commended.

Forty-six deaths occurred during the year, and 13 of these were due to pulmonary phthisis.

Surrey. Brookwood.—In all the cases of death, 96 in number, the cause was verified by examination. In only seven was the death attributed to phthisis.

Surrey. Cane Hill.—Sixteen cottages, to accommodate twenty married attendants and their families, have been erected, and are found a great convenience.

It has been decided to enlarge this asylum so that it may be capable of receiving 2,000 patients. Plans have been prepared. The new wards will be provided with large day-rooms ; each block may be worked as two separate wards, with not more than 75 patients in each ward.

The plans are excellent, although we deeply regret that it has been found necessary to provide such an over-grown place as this will be when the work is complete.

Dr. Moody reports that a patient having failed to report himself at the expiration of a period of absence on trial, or to send a medical certificate stating that his detention was no longer necessary, was treated as an escaped patient, and brought back to the asylum.

This may be the lawful method of dealing with a patient under the circumstances (and we notice that Dr. Moody indicates 16 and 17 Vict., c. 98, s. 79), but we think that it is unusual.

Only 10 deaths, out of a total of 104, were attributed to phthisis.

Surrey. Wandsworth.—The deaths during the year numbered 92, and of these 29 were due to "disease of lungs and bronchi." We beg to be excused when we remark that Table V., as given in this report, is a very useless return.

Sussex.—The Visitors pay a well-deserved compliment to Dr. Williams on his retirement. They point out that through his efforts the necessity of building a second asylum in the county has been averted.

The protection of the building from fire is under serious consideration.

Ninety-seven deaths occurred during the year, and of these 19 were due to phthisis.

Warwick.—A patient who suffered from a delusion that a person in Coventry galvanized him, succeeded in reaching his father's house in that town, where he possessed himself of a revolver. The two attendants whom Dr. Sankey sent to apprehend him succeeded in doing so before the lunatic had time to attempt the murder of his supposed enemy. The attendants behaved with great bravery and determination, since they were aware that the patient had firearms. One attendant received a severe wound in the chest, but is now completely recovered.

A nurse rescued a female patient who had thrown herself into a deep pool. She has been presented with a certificate from the Royal Humane Society—a reward she most emphatically deserved.

Fifty-one deaths occurred during the year, and of these only eight were due to phthisis.

Wilts.—During the last three months of the year there have been indications that the sanitary condition of the asylum is not quite satisfactory. Five patients and four members of the staff have suffered from typhoid fever. The water is reported to be of "first-class purity," and the drains are believed to be in good order. No doubt this is very puzzling, but it may be considered certain that further search will lead to the discovery of the mischief.

The heating of the building has been much improved.

The staff has been increased by the appointment of a second assistant medical officer.

Seventy-two deaths occurred during the year; of these 14 were due to phthisis pulmonalis.

Wonford House.—Of the 155 patients treated during the year, 85 received charitable assistance. In connection with this Dr. Deas says:—

In their report for 1886 the Committee dwelt on the fact that a most important function of the hospital was "to provide for persons of education and respectability in reduced circumstances, treatment and accommodation at moderate rates suited to their former social position." The application of the principle thus indicated has during the past year tended to limit the number of admissions, and led to the removal of some patients from the hospital. This accounts to a considerable extent for the diminution which has taken place in the numbers. I think there can be little doubt that the patients admitted at charitable rates should be drawn as far as possible from the same social strata as the patients who pay the full rates. It is on gentlefolks of limited means that the question of finding suitable asylum treatment for insane relatives presses most heavily, and for them the benefits of such an institution as this cannot be over-estimated. To extend the charitable assistance of the hospital to patients from a decidedly lower social stratum is, I think, unadvisable, both for their own sakes and for the sake of the other patients.

Worcester.—The Visitors report that they have obtained a promise from the Lord Chancellor that he will insert a clause in the Asylum

Bill giving power to Committees of Visitors to grant to officers and servants on leaving asylums from confirmed sickness, age, or infirmity, or injury occasioned in the performance of duty, a sum of money down instead of a retiring pension.

A large addition has been made to the estate. The wards in the old building are to be heated by steam.

Dr. Cooke records a remarkable attempt at suicide by a young woman. When out with a walking party in the fields, in charge of two nurses, she suddenly started off, jumping the gates and fences with such agility that she managed to outstrip the nurse following closely on her heels; entered the garden of a cottage near by, and jumped down a well some thirty feet deep, with five feet of water at the bottom. She was taken out, having fortunately sustained no injury beyond a few scratches. Up to the time of the occurrence she had been in an extremely desponding state, but from that day she began to improve, and was at the date of writing convalescent.

(*To be continued*).

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The forty-seventh Annual General Meeting of the Medico-Psychological Association of Great Britain and Ireland was held in the Hall of the Royal College of Physicians, Edinburgh, on Monday, August 6th, Dr. T. S. Clouston, President, in the chair. Among the members present were Drs. Aitken, Fletcher Beach, Bower, Bramwell, Baker, C. M. Campbell, P. E. Campbell, Campbell Clark, Hearder, Ireland, Carlyle Johnstone, Jepson, Keay, Murray Lindsay, Lyle, Rooke Ley, R. Mitchell, Macpherson, Mould, T. W. McDowall, J. G. McDowall, Mackenzie, Sir Arthur Mitchell, K.C.B., Conolly Norman, Needham, A. Newington, Philipson, Patton, Rayner, J. Rutherford, R. L. Rutherford, Rogers, G. Robertson, Savage, Spence, Sibbald, Sheldon, Stocker, Hack Tuke, Turnbull, Urquhart, Whitcombe, Oscar Woods, Bywater Ward, Wiglesworth, Watson, Yellowlees, etc. Among the visitors were Professor Benedikt, Professor Grainger Stewart, the President of the Royal College of Physicians (Dr. Peel Ritchie), Drs. Lundie, Bruce Bremner, Webster, Young, Rattray Affleck, Church, Greig, Miller, Keiller, and Stearns.

Dr. Needham (the retiring President) said that his last official duty was that of asking his old and valued friend, Dr. Clouston, to replace him in the chair. Under ordinary circumstances one would express a belief that the man who occupied that position would not diminish its dignity or its honour; but he felt quite sure that in asking Dr. Clouston to take the chair he might say a great deal more, and express the conviction, not only that the new President would not diminish the honour and dignity of his office, but that his acceptance of the office would add honour and dignity to it.

Dr. Clouston, on taking the chair, said that his first duty was to thank the members very heartily for the honourable position in which they had placed him. He should do his best to perform his duties to the satisfaction of the Association, and in accordance with its rules. He was quite sure that their department and their association were of growing importance in the medical profession, and they were all bound to do their utmost to advance the reputation and the usefulness of so important a branch of medicine.

The minutes of the previous meeting (printed in the Journal for October, 1887) were taken as read, and confirmed.

The President next asked the Treasurer, or his substitute, to submit the annual statement of accounts. He was grieved to announce that Dr. Paul was unable to attend the meeting. He was sure the members would unite with him in the feeling of regret at his absence.

Dr. Hack Tuke, on behalf of Dr. Paul, submitted the annual balance-sheet, which will be found on the next page. He said that it would be observed that the balance was almost identical with that in hand at the commencement of the year. It had occurred to him that it would be interesting to look back ten years to see how the Association had gone on during that decennium. The balance in hand, according to the balance-sheet of 1878-9, was £499; but subsequently a sum of £306 had been invested. A person superficially examining the two accounts, and looking at the balance at present in hand, might be misled in consequence of the investment that had been made. Adding to the sum so invested, the amount of the balance of £75, there would now be a total of £381, as against £499 ten years ago, showing a diminution of £118. But what had been done during that period? In the first place, £51 had been spent on the index to the Journal, which Dr. Blandford had most efficiently made. A more useful work had never been executed for the Association. The index was of immense use to every member in looking up subjects which appeared in the Journal. They had also introduced an Index Medico-Psychologicus, which had been prepared at considerable expense, and would be of permanent value to the members, containing as it did a bibliography of psychological works. Prizes of 10 guineas had also been given on several occasions to assistant medical officers for the best essays on clinical psychological medicine. Again, they had added to the size of the Journal, and the number of copies printed had been increased from 700 to 800. A large amount of money had likewise been spent upon the illustrations in the Journal. A strong wish had been expressed at one of the meetings of the Association that the Editors should not be parsimonious in regard to the illustrations, and they had accordingly spent during the year 1886-7 a sum of £51, which he thought the members would agree had not been misapplied. The illustrations had included the beautiful plates accompanying Dr. Palmer's microscopic investigations. There had also been expenses connected with lunacy legislation on several occasions during the last ten years. In addition to the £306 that had been saved, they had now £1,340 in hand as the Gaskell trust fund, which was assuredly a very satisfactory circumstance to be able to mention. Quite recently a valued correspondent had taken alarm on comparing the balance-sheets of 1887 and 1877, and had stated that the total expenditure rose from £367 in 1877 to £595 in 1887. To that the answer was that the income had also risen from £371 in 1877 to £560 in 1887, so that the net difference was only £39; and that was more than accounted for by two items in last year's account—the donation to the Eames fund of £10 10s, and the amount spent on a plate for the Certificate of Efficiency in Psychological Medicine, £31. He thought, therefore, that the record which they were able to show for the last ten years was as good as they could desire; and he had accordingly great satisfaction in presenting Dr. Paul's balance-sheet, which had been duly audited, to the members.

Dr. Jepson then moved the adoption of the financial statement. Dr. Patton seconded the motion, which was agreed to.

The President said that the members were evidently satisfied with the financial position of the Association, and with the full statement made by Dr. Tuke. They would be glad if in 1889 there was a larger balance in hand at the end of the year than at the beginning; for a society, like an individual, should seek to conduct its affairs with economy of the right kind. The next business was the Election of Officers and Council. According to the present method, which was adopted some years ago, a ballot paper had been prepared, containing the names proposed by the Council, but there was no reason why any other names should not be substituted. The Council would not feel

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Treasurer's Annual Balance Sheet, 1887-88.

RECEIPTS.	£	s.	d.
To Balance—Cash in Hand	75	15	7
Subscriptions received from England and Wales...	291	14	0
Subscriptions, Secretary for Ireland	33	12	0
Examination Fee (Ireland)	9	9	0
Subscriptions, Secretary for Scotland	45	3	0
Examination Fees (Scotland)	50	8	0
Sale of Journal	128	14	0
Interest on Gaskell's Fund £1,000 Consols, and on additional Donation of £340 on Deposit ...	33	6	6
Dividend on Consols £306	9	13	7
Fees received from Examination for the Certificate in Psychological Medicine (England)...	37	16	0
	£715	11	8

EXPENDITURE.	£	s.	d.
By Annual, Special, and Quarterly Meetings ...	41	17	7
Parliamentary Expenses	27	10	1
Expenses of Reporting at various Meetings ...	16	1	2
Editorial Expenses	12	12	0
Printing, publishing, engraving, advertising expenses, and postage of Journal ...	421	10	2
Sundry Expenses, Printing, Advertising, &c. ...	19	8	6
By Treasurer	6	6	0
By Secretary for Ireland	2	5	8
By Secretary for Scotland	2	11	10
By General Secretary	4	5	5
Gaskell Fund's Expenses	7	12	4
ditto Prize—Dr. Mortimer...	30	0	0
Examiners' Fees	46	4	0
Messrs. Wyon and Co. for Engraving Stamp for Stationery	2	2	6
Balance in hands of Treasurer	75	4	5
	£715	11	8

FLETCHER BEACH (pro Auditors).

August 6th, 1888. Royal College of Physicians, Edinboro'.

J. H. PAUL,
TREASURER.

aggrieved if other persons were elected, but would accept the result with all loyalty. And if members desired to make any remarks with regard to any of the officers of the Association, he should be glad to hear them. It was far better that such remarks should be made openly at the meeting than at other times. If there was to be any explosion, let it be in the ordinary course of their proceedings. There was perfect freedom of discussion.

Dr. Patton, Dr. Carlyle Johnstone, and Dr. Rogers were nominated as scrutineers of the ballot.

Dr. YELLOWLEES said that the election was at present a solemn farce, since no one would think of erasing any of the names proposed by the Council. He should be very glad when they reverted to the old method of election. He thought this ballot paper system a bad one, and had opposed it when first brought forward.

Dr. ROGERS, like Dr. Yellowlees, had opposed the present mode of election, but had bowed to the decision of the majority. He thought the step taken was a false one. The Council was acting constitutionally, but nevertheless despotically; and he should be glad if they reverted to the former method.

The PRESIDENT said that that could be done only by giving notice of motion for the next meeting. They could, of course, retrace their steps if the majority of the members desired it.

Dr. IRELAND said it would save time if Dr. Yellowlees would propose his motion at once, as it would no doubt obtain considerable support from the members.

The PRESIDENT said that notice must be given, and that under the rules nothing could be done at the present meeting.

Dr. TURNBULL suggested that the election should be postponed until after Dr. Rayner's motion for the increase of the numbers of the Council had been considered.

It being the pleasure of the meeting,

Dr. RAYNER moved the resolution of which he had given notice, namely, "That the number of members of the Council be increased to 18." No doubt, he said, as a general principle, a small Council was much more effective than a very large one, because, as a rule, the larger the Council, where the members all attended, the more talk and the less work; but in a Council distributed as theirs was, representing so many different interests in different divisions of the country—the interests of private asylums, public asylums, county asylums, specialists, assistant medical officers, etc.—it was difficult to have a complete representation with so small a number as 12. He therefore proposed that the number be increased to 18, which, with the 10 *ex-officio* members, would give a total of 28.

Dr. TURNBULL seconded the motion.

Dr. URQUHART pointed out that when the present arrangement was made the Association was much smaller than at the present time. He thought there should now be some rearrangement. The difficulty was that the Council meetings, except on rare occasions like the present, must be held in London, and it was thought by some in the country that London influence predominated too much in regard to the business and the selection of officers. After the resolution passed a few years ago as to the non-payment of Members of the Council attending the London meetings, he did not see how that difficulty was to be met, except by making the Council larger, and so increasing the probability of having a proper representation from the provinces.

Dr. URQUHART said, in answer to a question, that at present there were seventeen members of Council from England, three from Scotland, and two from Ireland.

The motion was then put and unanimously adopted.

Dr. ROGERS suggested that in future the agenda paper should contain a list of all the officers, to which Dr. RAYNER replied that he had made a memorandum to that effect.

The PRESIDENT said that the meeting could now proceed to the election of

the six new members of the Council to be added to those named on the balloting papers. It was open to any member to suggest names.

Dr. NEEDHAM asked what was the relative number of members of the Association in the three divisions of the kingdom.

Dr. SAVAGE said that the subscriptions from England numbered 291, from Ireland 33, and from Scotland 45.

The names of the following gentlemen were suggested:—Dr. Patton, Dr. Ireland, Dr. Dodds, Dr. Strahan, Dr. Whitcombe, Dr. Spence, Dr. Turnbull, Dr. Sheldon, Dr. Cook, Dr. Campbell, Dr. Clark, and Dr. Rutherford. After the ballot, while the scrutineers were counting the votes,

The PRESIDENT invited the meeting to proceed to the election of honorary members. The gentlemen proposed were Professor W. T. Gairdner, of Glasgow, and Dr. H. P. Stearns, of Hartford, Conn., United States of America. He would ask Dr. Hack Tuke to make any remarks he might desire to offer with regard to the two gentlemen proposed.

Dr TUKE said the position of Professor Gairdner was well known to the members, who would all recollect how efficiently he had acted as President at the Glasgow Meeting. His position outside their own branch was so well established that it need not be further mentioned. He was quite sure the Association would be honouring itself in appointing Professor Gairdner one of its honorary members. Of Dr. Stearns also he could speak in the strongest terms, having seen him at his own institution in the United States, the Hartford Retreat, in Connecticut, and having witnessed the admirable way in which he superintended that institution. Dr. Stearns was well known amongst alienists in the United States, and those who had met him not only in America, but on the occasion of his previous visit to England, would know what an excellent man he was, and what an advantage it would be to the Society to have him on its list of honorary members.

The proposal was unanimously agreed to.

The PRESIDENT said he could confirm in the strongest way the observations made by Dr. Tuke as to the honour which would be conferred upon the Association by the election of the two gentlemen proposed. Professor Gairdner's old students, several of whom were present, would know the profound respect and love entertained towards him, apart from his professional position. They had lost several of their honorary members in America, and they had now the advantage of replacing one of them by Dr. Stearns, whom he had known for a long time.

Dr. Stearns was then introduced to the meeting as an honorary member.

Dr. URQUHART read the names of the persons proposed as ordinary members, namely:—

Dr. James Chambers, Assistant Medical Officer, Cumberland and Westmoreland County Asylum.

Dr. William McAlister, Kilmarnock, Cumberland and Westmoreland County Asylum.

Mr. M. J. Nolan, Assistant Medical Officer, Richmond Asylum, Dublin.

Dr. J. Batty Tuke, Jun., Resident Physician, Saughton Hall, Edinburgh.

Dr. LYLE and Dr. MACIVER CAMPBELL were nominated as scrutineers of the ballot for the election of members, and they reported that the members proposed had been duly elected.

Dr. RAYNER stated that the reports of the Parliamentary Committee had been printed and circulated. It had met during the past year a great number of times, having on one or two occasions had all-day sittings. It had done its best to protect the interests of the members of the Association in regard to pensions, but unfortunately without any great results.

Dr. NEEDHAM said the Committee had held a considerable number of meetings in regard to the Local Government Bill. At one of these it was resolved that the only movement that could be made with any prospect of success was that in regard to pensions and financial arrangements generally there should be the right of appeal so as to preserve as far as possible the *status in quo* of existing officers. He (Dr. Needham) was requested to write on the subject

to Sir John Dorrington, who agreed to introduce an amendment to that effect. The Government, however, declined to accept it, stating that they had no reason to doubt that the County Councils would be as considerate of their officers as the existing bodies, and that they could not put a slur on them by accepting such an amendment. The Parliamentary Committee, therefore, had done all it could, and he only regretted that its action had not been successful.

Dr. Rayner proposed that, as the Lunacy Bill had been postponed, the Parliamentary Committee should be reappointed, with power to add to its numbers. During the last year it was felt that the County Asylums were not so largely represented as was desirable, and certain matters were referred to a Sub-Committee of members of the Association who were not on the Parliamentary Committee. It would be much more convenient to give to the Committee power to add to its numbers.

Dr. Stocker seconded the motion, which was agreed to.

The President said he was authorized to announce that the following gentlemen had been appointed for the next two years examiners for the certificate in Psychological Medicine:—For England, Dr. Blandford and Dr. Rayner; for Ireland, Dr. Conolly Norman and Dr. R. Atkins; for Scotland, Dr. Yellowlees and Dr. Rorie. It was gratifying to be able to state that the certificate had met with a great amount of success. The position of mental medicine had not as yet been very satisfactory, but the Association had appointed examiners with the view of forming a body of men who should be obviously qualified in that department. He believed it was the idea of the proposer of the measure, Dr. Hack Tuke, that in time the new qualification should become registrable. At present they had granted the certificate to forty-five gentlemen and one lady, all of whom had passed most satisfactory examinations. They had a pardonable pride in Scotland in stating that that division of the country had produced more than half the number of certificated candidates, and it was to be hoped that it would maintain its reputation in the future. The Council had thought it would be well to hold examinations in Scotland in different places on the same day. That would imply, under the rules, that only one examiner would be present. They had accordingly appointed as assessors to the examiners Dr. Urquhart for Glasgow, and himself for Edinburgh, so that there would be two examiners present at each examination. It was well known that it was unsatisfactory for candidates to be in the hands of one examiner, and he hoped that the course adopted by the Council would meet with the approval of the Association.

The scrutineers for the election of officers and members of Council then stated that the gentlemen nominated by the Council had been elected, together with the additional members under the new rule:—

President-Elect. . . .	H. F. Hayes Newington, M.R.C.P.Ed.
Treasurer	John H. Paul, M.D.
Editors of Journal . .	D. Hack Tuke, M.D. G. H. Savage, M.D.
Auditors	D. Yellowlees, M.D. T. Outterson Wood, M.D.
Honorary Secretaries .	Conolly Norman, F.R.C.S. For Ireland. A. R. Urquhart, M.D. For Scotland. H. Rayner, M.D. General Secretary.

MEMBERS OF COUNCIL.

E. M. Courtenay, A.B. M.B.	W. W. Ireland, M.D.
T. D. Greenlees, M.D.	W. J. Dodds, M.D.
M. D. Macleod, M.B.	S. A. K. Straham, M.D.
J. Wiglesworth, M.D.	E. B. Whitcombe, M.R.C.S.
A. Patton, M.B.	E. M. Cook, M.B.

Dr. MacIver Campbell then proposed the following resolution, of which he had given notice: "That it is desirable that additional tables be drawn up by the Association, giving some tabular record of the appearances observed at post-

mortem examinations in asylums; and that a Committee be appointed to consider the practicability of so doing, and, if possible, to prepare such tables and submit the same to a future meeting." He said it was not necessary to refer at any length to the importance of a record of post-mortem appearances. There were several thousand post-mortems made in asylums annually. They were very carefully done and would compare favourably with those conducted in hospitals or in general practice. They were carefully noted, but all that mass of information was locked up in the archives of the asylums, the general public receiving no benefit from it. The subject was no doubt a difficult one. It was difficult to frame tables that involved contentious pathological views. Various attempts had been made in that direction. A paper on the subject, by Dr. Adam, of Malling Place Asylum, appeared in the Journal for October, 1884. He drew attention to the great number of post-mortems and to the lack of records, and appended several tables embodying his views as to how the necessary information might be conveyed to the public. He (Dr. Campbell) had during the last autumn, with the help of Dr. F. Collie, attempted to compile a *précis* of all the post-mortems that had been made in the Perth District Asylum, in order to see if they would fall into a tabular form; and it was owing to his failure to bring them into such a form that he had ventured to bring the subject before the meeting. The subject was one which the Association ought to face, notwithstanding its difficulties. He thought that the fewer and the simpler the tables the better. They should be such as any properly educated assistant medical officer could fill up, omitting all minute and contentious pathology. He desired that a Committee should be appointed to look into the question and report upon it. The Committee might not be successful in its endeavours, but some benefit would be derived even from their failure, for, after their report, the question might be considered as shelved for at least a generation. There were several precedents for such failures of Committees, but he would only mention two modern instances. It was well known that Carlyle, Tennyson, Ruskin, and other men of letters had met together to consider whether something might not be done to remove the ridiculous anomalies of English spelling and pronunciation; but they determined that nothing could be done, and the English public had ever since been satisfied with their decision. Again, a Society of German journalists met to try to induce the great printing houses of Germany to abolish the printed characters which compels every German to wear spectacles. They encountered, however, great opposition from the reactionary party, and the movement was finally put an end to by the hand of the Iron Chancellor himself. He begged to propose that a Committee be appointed to consider the important matter to which he had referred, and to report upon it at some future meeting.

Dr. Fletcher Beach seconded the motion.

Dr. Ireland said that a Committee had been appointed for the purpose mentioned by Dr. Campbell ten years ago at a branch meeting in Edinburgh, when he (Dr. Ireland) acted as Secretary. Dr. Batty Tuke had proposed that a Committee should be appointed to draw up a scheme for uniformly recording post-mortem examinations. He (Dr. Ireland) objected to it at the time, and said that the probability was that the Committee would meet and draw up its report, but that those who had the opportunity of making post-mortem examinations would pay but little attention to the scheme, and that was exactly what took place. An admirable scheme was drawn up and published, and Dr. Howden, of Montrose, published engravings of the convolutions of the brain and other parts of the nervous system, They were brought out in a cheap form, and so arranged that the lesions could be indicated by pasting a piece of paper upon the very point affected. He had no objection to the same course of proceeding being again adopted, but he ventured to think that it would be attended with the same result. He would not, however, propose any amendment to the motion.

Dr. Yellowlees wished to know, as a matter of curiosity, and for the information of the members, what was the value of naked eye appearances in post-mortem examinations in cases of insanity. His own impression was that they were utterly worthless, however they might be tabulated.

The motion was then put and agreed to, and the following gentlemen were appointed members of the Committee:—Dr. Clouston, Dr. Savage, Dr. Mickle, Dr. Wiglesworth, Dr. Hack Tuke, Dr. Sibbald, Dr. Batty Tuke, Dr. Howden, and Dr. C. M. Campbell.

Dr. SAVAGE proposed on behalf of the Council "That in the opinion of this meeting the attention of the Medical Council should be called to the Medico-Psychological Examination of Efficiency in Psychological Medicine with a view to the registration of this certificate; and that the importance of this guarantee of practical experience of lunacy be impressed upon the Government in introducing any new Lunacy Bill." The resolution, he said, was submitted in accordance with the wish of the Council. It had been already shown that a great number of assistant medical officers would come up for examination. He regretted, however, to say that the superintendents had not done their duty in the matter of urging their assistant medical officers to present themselves for examination. It was a practical examination, and no one need fear it who had done his work well and kept his eyes open. At all events, nearly fifty persons had passed, and it was now thought that they had a right to go to the Medical Council and ask them for a recognition of the certificate. It was a guarantee that those who had obtained it had spent their time, at all events, with some profit in the wards of asylums, had attended lectures, and qualified themselves as experts in lunacy. It was also thought that they might address the Government with the view of insisting that those who signed lunacy certificates should have some guaranteed knowledge of the subject. He thought that the steps proposed were wise, and were the assertion of life and power in the Association.

Dr. WHITCOMBE seconded the resolution. As one of the superintendents, according to Dr. Savage, who had not done their duty, he might say that he had been asked by some of his clinical assistants what was the use of the certificate. Medical men who had just got their diplomas were not fond of going in for examinations—considered that they had been examined enough—and he was bound to state that he wished to be able to give some good reasons or point to some benefits that would be obtained by passing the examination. The fact was that many superintendents were not fond of experts as assistants; they were content to be experts themselves. He wished to know what benefits the assistant or clinical student would obtain from the certificate. Only the other day he had examined a class in psychological medicine at Birmingham, and he was glad to say he was able to recommend two certificates in connection with the School of Medicine in that town; but at the same time he could not state what benefit the certificates would be to the holders. The proposed step, however, was one in the right direction in order to bring the subject of psychological medicine under the notice of the General Medical Council, and to make it a subject of compulsory examination in ordinary diplomas.

The motion was then put and unanimously agreed to.

Dr. URQUHART moved that the Secretaries be instructed to arrange with Messrs. Churchill for the publication of a full directory of the asylums of Great Britain and Ireland as part of their annual Medical Directory. In the Directory as at present arranged it would be observed that the asylum service was relegated to a very inferior place, coming in with the advertisements after the list of licentiates in dental surgery, whereas the tendency at the present time among themselves was to claim some sort of recognition by the State and by the Medical Council. They should be placed after the Public Services—the Army and Navy. The Directory contained but very curt information regarding asylums, and there was an absolute suppression of the fact of there being any assistant or visiting medical officers at all. There should be a description of the asylum, with its situation, the class of patients received, the name and qualifications of the superintendent and the assistant medical officers, together with the amount of accommodation afforded.

Dr. RAYNER seconded the motion, which was agreed to.

The PRESIDENT said that the next business was to consider the place of meeting in 1889.

Dr. Urquhart said that he had at previous meetings spoken strongly in favour of the annual meeting of the Association being held at an earlier period of the year, and it was not now necessary to reopen the question, as it had been fully discussed at the last meeting in London. He now proposed that the matter be left to the Council, with an indication that they should bear in mind the instructions then given, that the meeting should be held at an earlier period in the year, probably in May, and in London, and that its duration should be extended (cheers).

Dr. Hack Tuke—Not for next year.

Dr. Urquhart said it was evident that the members not only wished that the meeting should be earlier, but that it should be held in London.

Dr. Rayner said it was generally understood that the experiment should be made of having the meeting earlier in the year.

The President asked if the members would authorize him to direct the Secretary to issue a circular to the members asking their opinion on the subject? (hear, hear). At an early period a circular would be issued to all the members of the Association. He understood that the matter of the place and time was to be left in the hands of the Council, their attention being directed to the resolution passed last year. He had no doubt that the Council would act in accordance with the general opinion expressed by the members.

This was agreed to.

Dr. Yellowlees proposed a vote of thanks to the officers for the past year, to Dr. Needham, the retiring President, to the Editors of the Journal, to the three Secretaries, and to Dr. Paul. The members well knew how worthily Dr. Needham had filled the chair, and what service he had rendered to the Society, especially in connection with the Parliamentary Committee. The Editors had grown grey in the service of the Society, and deserved the cordial thanks of the members. Of course they could not get on without the Treasurer; their best thanks were due to him (cheers). He would propose a special vote of thanks to the Secretary for Ireland, Dr. Courtenay, who now, after many years' service, had retired. To all the Secretaries, and chiefly to the one who bore the heaviest burden, Dr. Rayner, their hearty thanks were also due.

The motion was unanimously adopted, and the meeting adjourned.

AFTERNOON MEETING.

The President delivered his Address, which will be found at page 325 of this Journal. (First Original Article.)

The President said that he was anxious to invite discussion on the subject of his Address. He thought that since papers had disappeared from the annual meetings and appeared only at the quarterly meetings they ought to select some subject of common interest for discussion at once lively and instructive. He was desirous that the subject of his Address should be so discussed, both for the sake of the Association and also for the sake of extending their knowledge of that important topic.

The President of the Royal College of Physicians (Dr. Peel Ritchie) said he rose to express on behalf of the College of Physicians their great gratification that the Medico-Psychological Society had visited Edinburgh on the occasion of its annual meeting, and their satisfaction in being able to be useful to associations of that character. They only wished that their opportunities were more numerous of offering the accommodation they possessed for so great and scientific a purpose.

The President, on behalf of the Society, thanked the College, through its President, for the manner in which everything had been done for the accommodation of the members at the meeting. He then called upon Dr. Hack Tuke to open the discussion on the subject of the paper.

Dr. Tuke said he wished to express his hearty concurrence in the course adopted by the President in bringing forward a subject for general discussion. He had often regretted that their papers were now confined to the quarterly

meetings, or were sent to the British Medical Association. Most of the members would agree with the general tenour of the President's address on the subject of secondary dementia. They would recognize the hopelessness, to a large extent, of that affection. He quite agreed with the President in regard to the desirability of restricting the term "dementia" to those conditions, probably organic, which were considered incurable; also as to the use of the continental term, "dementia paralytica," being undesirable. It was no doubt much better to keep the term "general paralysis" for a separate and distinct disorder. The President's observations on adolescent insanity and its relation to secondary dementia had not, he believed, been previously made; certainly not in the same striking and original way, and would prove of great value to all who investigated the subject. With reference to the alternatives mentioned by the President, whether what was found in the brain in dementia was directly due to disease of the brain, or whether it was a secondary stage of the pathological changes which caused dementia, his opinion was that the correct view comprised both. Certainly some naked eye changes were the products and not the original cause. He had hoped that the President would have spoken in a more sanguine strain in reference to their pathological knowledge of secondary dementia. The remarks quoted from Dr. Bevan Lewis certainly pointed to a more sanguine view than the President was at first disposed to take as to their knowledge of the pathological changes in dementia. He had been struck with the President's allusion to the remarkable way in which the brain of the dement under certain conditions responded to a stimulus. In some cases he had himself been exceedingly puzzled in the diagnosis of cases of dementia. The patient perhaps could not tell the day of the week, or was ignorant of some of the most common circumstances of life, and his condition was apparently such as to justify an unhesitating diagnosis of dementia; and yet that very patient within a week was able (as in the case of a patient of his own) to write a perfectly coherent letter. If he had been asked whether it was possible that such a patient could write that letter, he should have been obliged to say that it was quite contrary to his experience. The President had said that the general effect of constant intercourse with incurable patients lowered the tone of mind of the medical attendants. He could not help thinking of the superintendents of Metropolitan District Asylums, and especially of the superintendents of Earlswood, Lancaster, and Darenth, with whom he was acquainted. He certainly had not during the last few years observed any particular tendency to dementia in those gentlemen, so he hoped that the President would modify that statement (laughter). He should like to add that he doubted whether what the President had formulated in his thirteenth proposition was peculiar to dementia. It seemed to him that the more the constitution and heredity of the insane was studied, the more it would be found that this formula held good of other insanities as well. He would not occupy more of the valuable time of the meeting, and should have been glad if Dr. Clouston had called on some other member to open the discussion; but he must thank him for his valuable and very suggestive Address.

Dr. SAVAGE said he felt thoroughly well pleased with the President's paper, and at the same time thoroughly discontented, as he did not believe many of the statements contained in it. He had been for years in the habit of referring to dementia as mental ruin. It was like the ruins of castles, where the roofs and the windows were the first to go, while the walls sometimes remained strong and, to a certain extent, useful, but sometimes crumbling to pieces. There were all varieties of ruin and destruction, but in one case one part of the building suffered most and in another another part, so that the loss of memory might be regarded as a gauge of senile dementia, and loss of self-control as a gauge of another kind. As there were infinite varieties of ruin, so were there infinite varieties of gradations in dementia. Again, it was interesting to hear that it was a typical kind of evolutional process turned upside down, but he did not think he was prepared to accept that view. He would admit that there might

be a specific line of ruin. They were all prepared to recognize a neurotic type, the peculiarities of which had been described in the Address; and he was prepared to admit that persons belonging to that stock, as a rule, degenerated in a certain way. He admitted that there was a specific form of degeneration which was most commonly met with, perhaps always and only met with, in the members of neurotic families; but he could not admit that there was only one kind of dementia. He accepted, however, the definition of the President, but only as something on which they could stand to reach to higher things. He could not agree that there was no analogy to dementia in other pathologies. Was not blindness the dementia of the eye? There might be a tendency to blindness, but there were infinite varieties of disease and degeneration associated with the eye, and they would be wrong in saying that there was only one form of blindness, and that that form must belong to persons who had ancestors with a special form of eye. There could, of course, be no complete analogies, because the mind was the most splendidly-developed thing in the universe, having more sides and parts than anything else, so that nothing else could be compared to it; but there might be partial. With reference to the question of early breaking-down, if it was admitted that the emotional side of the being was the most highly developed, the President, a follower of Herbert Spencer and Jackson, ought also to admit that the tendency of the most highly developed and the last developed was to break down first. If he did not, he was upon the horns of a dilemma. The President had referred to a case in which there had been 200 attacks of acute mania, and yet the patient was not demented. He was quite certain that that person came of a very neurotic stock, and was just the person who ought to have gone into dementia. The result was very puzzling. Another puzzling thing was the statement in the paper that there were no typical cases of dementia after 30. But he retracted his opposition and would say with the President that there could be no cases of true specific dementia that were not adolescent. Dr. Tuke and himself had frequently wept (metaphorically) over those adolescent cases that as they grew older became such an incubus upon institutions and ratepayers. It might be thought that, as youth was on their side, they would surely get better; but the break-down was just at the period when the first strain came on, and instead of stretching forth their powers they began to shrink and contract and passed into the condition of specific dementia. As a description of such cases, the paper was a most admirable one, and would be highly appreciated by the members.

Dr. Wiglesworth said that it was somewhat new to him to hear that typical cases of dementia always occurred in the early periods of life, and he presumed it was to be explained by saying that the earlier the case of mental disease the greater must the dementia necessarily be. The tendency to dementia, he thought, was typical of mania, which furnished one of the best examples of the dissolution of the nervous system from above downwards. He agreed with the President's remark as to the blood-vessels being the servants of the brain and nerve-cells. He had long advocated the view that mental disease was primarily a disease of the nerve-cells, and that the vascular change was secondary. He agreed with Dr. Savage that the emotions were the first to go in moral insanity. They were most typically developed and the first to go when mental decay set in. The President had stated that abnormal emotional sensibility was the first thing; but the two statements could be reconciled. Was it not true that abnormal emotional sensibility was due to a loss of control over the higher emotions or paralysis of the higher emotions and an undue sensibility of the lower? So on the emotional side, corresponding on the intellectual side with mania, which he regarded as due to a paralysis of the higher co-ordinating and controlling functions of the brain and over-activity of the lower. With reference to the lower animals, the President had stated that dementia was a thing of itself, that maniacal states were met with in the lower animals, but not demented states. But in the ordinary conditions of life how could a demented animal exist? In the wild state it would be immediately wiped out of

existence, and in the domestic state a chance of surviving would not be given it.

Dr. Ireland said he had listened with great interest to the President's generalizations about heredity and the different stages he had observed in families. He (Dr. Ireland) had collected the details of a great many generations of families, but he had never been able to present them in such a complete form as the President had done. There was one thing which those who studied such questions were apt to omit. They saw families passing through different stages of insanity, even proceeding to extinction, and they often omitted to bear in mind that in such cases there was often a considerable amount of curability. It was sometimes found that a stock which seemed hopelessly bad recovered itself; the idiotic or epileptic members died out, and, whether by judicious inter-marriages or by attention to hygienic conditions, a recovery took place. Idiocy or imbecility appeared to be most evidently hereditary; but it often happened that there were infants, neither idiots nor imbeciles, who were born with a strong neurotic tendency, and were, as the French writers called it, *dégenerés.* One might not at first notice anything remarkable about them, but their brains did not work exactly like those of other people. He thought that the President had not sufficiently explained the exact development that took place after pubescence. At that period there was a strain of development going on, and somehow or other a breakdown occurred. As far as he knew, the growth and development of the brain were complete about the time of puberty. The brain was fully developed at about ten or twelve years of age; after that followed the function of pubescence. Then, the individual being complete in growth and development, proceeded to what the President had spoken of as the higher function, the reproduction of his kind. He did not say where the development came in. If dementia was to be considered insanity of development, he thought it ought to occur at a much earlier period than twenty or twenty-five. It seemed to him that the insanity of adolescence was in many cases the insanity of generation. Born of a neurotic stock, the individual might be kept from the exciting causes of insanity for a certain period, but when the struggle of life began, and he ceased to be under the care of his parents or guardians, he had to fight his own way, and in the course of his struggle he became insane. Some of the generalizations of the President were difficult to seize, and they were certainly novel. He had read the President's valuable clinical lectures on the "Insanity of Adolescence;" but he thought that the President's mind had grown since those lectures were delivered. He (Dr. Ireland) had for years thought that there was a kind of antagonism between generation and the highest intellectual faculties: that races, when they attained high intellectual development, tended to die out. And that led them to consider some of the causes of insanity found in the case of men of the age of twenty-five or thirty. He thought that masturbation and sexual excess had a considerable influence, exhausting in some way the substance from the system and taking it into quite a different channel. Frequently the cause of disease was in some other tissue. In lactational insanity, for example, the strain was towards the mammæ of the mother; in puerperal insanity, it was the strain of producing a new being. There were often causes producing dementia without any connection with the brain. There were remarkable cases of the extirpation of the thyroid gland, causing not, perhaps, dementia, but something very nearly approaching it. The cause in such cases, probably, was the destruction of the organ, which prepared some nourishment, which was very useful, if not absolutely necessary, to the brain function.

Dr. Conolly Norman said he was not aware that any English author had drawn attention to the particular condition which had been described as a specific form of insanity connected with adolescence and ending with secondary dementia; but it appeared to him to approach closely the condition which Kahlbaum had described as hebephrenia. He pointed out the special tendency in that affection to early and destructive dementia. The President's Address ap-

peared to him to minimize the difficulty of making out exactly where dementia begins. Some of the cases described exemplified extremely well the great difficulty attending the subject. One of the cases was that of a young girl. About two years ago there came under his (Dr. Norman's) notice a case of acute mania in a young girl, passing, apparently, into very complete dementia. In six months this condition was complete, and she remained so for a year, during which time he showed her to his class as suffering from secondary dementia. But she had since then recovered, and was at present convalescent. He failed to understand how to distinguish between such a case and a case of stupor following ordinary mania, and he was somewhat disappointed that the President had not pointed out any distinctive marks. With regard to the hereditary schemes described, it was difficult to see how they could be compiled, except in the most fragmentary way, by any one observer, each man being apt to be guided in certain directions by his own prepossessions. He could not agree with Dr. Ireland that the brain must be considered fully developed at the period of pubescence. It might be so in the savage state, but not in a state of high civilization. He was inclined to think that the most typical form of insanity connected with heredity, other than that described by the President as occurring in adolescence, was that form which so little tended to run into dementia, and which the Germans called "primary derangement." That appeared to him to be the commonest form of insanity in persons with a strong hereditary taint.

Dr. Yellowlees said that after listening to the President's paper he began to wonder whether he knew the particular variety of dementia referred to. Such a depth of dementia he felt sure was very uncommon. He had recently had a curious illustration of an apparently thoroughly demented patient, who had been exhibited to his students as a type, manifesting the power of giving intelligent and ready answers to questions put to him. He agreed that the type of dementia which developed from adolescent insanity in unfavourable cases might reach the extremely low point described by the President; but the mass of dements in asylums did not, he believed, sink to that depth of mindlessness. When the President said that all insanity had a tendency to dementia, was not that a learned way of saying that all disease tended to enfeeblement of function? And was not that true of every part of the body? It was true of the brain, and as of all organs, that disease meant enfeeblement of function, and that enfeeblement might be of all degrees. The dementia was not really disease, but the sequel of disease, and the obliteration, more or less complete, of the function of the brain. He had lately seen a curious illustration of the type of dementia described. It was the case of a young man who had boarded in his teacher's house and had shown no peculiarities, except that he was slow and stupid, until he went on a visit, when he was not able to adapt himself to his new circumstances. He then became queer, dreamy, and eccentric, and had to be sent home. As soon as he (Dr. Yellowlees) saw him, he ventured to ask the teacher, "Has he a brother who is a genius, another who is a drunkard, and another who is a good-for-nothing fellow?" The teacher was astonished, and said that he (Dr. Yellowlees) might have known the whole history of the family; that it was entirely new to him that it was possible to guess from the mental condition of one member of a family the mental character of the household. He was not disposed to see any distinction between the hereditarily weak brain that broke down under the age of twenty, and the brain that broke down a little later in life, except that the sooner the defect was manifested the greater was the original defect. He did not think there was any substantial difference between a vessel that failed to float in the harbour, and another that made a voyage a little way down the river, another that foundered when it got into the open sea, and another that went on until it was swamped by the first storm. It was a mere question of the degree of the inherent defect in the construction of the vessel. The Address from beginning to end was an emphatic assertion of the doctrine of heredity, and in that sense he was glad to hear it. He had always declined to accept the Association's Table of Causes, and had insisted upon putting

in separate columns the influence of hereditary pre-disposition and the other causes that evoked that disposition; he hoped that some day the Association would come to his way of thinking and have the tables revised. He agreed that it was not needful to have six stages of degradation; according to his own observation, three generations sufficed more frequently than six for mental degradation and ruin. They afforded, perhaps, a vivid and distinct type of dementia; but—he agreed with Dr. Savage—not a type of insanity. He should prefer to take as a type an acute maniacal attack beginning with depression, rising to a higher level, sinking into stupor, and then recovering. He had been struck with the President's statement about the two hundred and twenty attacks of recurrent mania. He (Dr. Yellowlees) had nothing like that number to record, but he had observed with the deepest interest how marvellously the brain recovered after recurrent attacks. He believed that in the solution of that recurrent insanity they would learn more for treatment than in any other type of mental disease. He did not know who was to solve the problem, but they ought to have some way of meeting those recurrent attacks. As to the difference between the President and Dr. Savage, it appeared to him to be a question which varied. Dr. Savage thought that moral perversion came first, and the President considered that emotional disturbance came first. He believed that it might be either the one or the other and that there was no absolute rule. They were too prone to pin down the manifestations of disease to their own ideas. With reference to the question of the general sensation in dementia, he might be permitted to tell a curious story which concerned both the President and himself. Professor Gairdner once wrote a note to him asking whether sensation was markedly enfeebled in dements. He replied, "No, not markedly except in the deepest cases." Being a wise man, Dr. Gairdner took a second opinion and wrote to Dr. Clouston, who replied emphatically, "Yes, greatly." Dr. Gairdner then came to him with the two letters and asked what they meant. His (Dr. Yellowlees') answer was, "Bring a pin and try for yourself." He then made such an investigation as was needful, and he satisfied himself that there was a certain amount of truth in what Dr. Clouston had said and a great deal more in what he (Dr. Yellowlees) had said. He wanted to emphasize the fact that sensation was not so often disturbed in ordinary cases of dementia as the President would have them believe.

Dr. Fletcher Beach said he thought that the London School Boards made a great mistake in thinking that every child's brain was exactly the same and in trying to infuse into them the same amount of knowledge. He thought that some arrangement would have to be made for giving a separate education to backward children. Some time ago a case was brought before him in which the father wished to send his child to the Board School, but the mistress refused to accept it. He (Dr. Beach) saw at once that it was a case of what was known as Mongolian imbecility, and he gave it as his opinion that it was not a proper case for an ordinary Board School. He had no doubt that if such cases were treated separately great good would result. With reference to the close relationship said to exist between idiocy and imbecility and secondary dementia, he had no doubt that it was in great part due to the state of the brain cells. It was well-known that in cases of idiocy and imbecility the brain cells were imperfectly developed, only two or three processes proceeding from them; and he supposed the same thing occurred in secondary dementia. Great stress was laid by the President on heredity producing dementia. He had often pointed out to his students the importance of inquiring in every case whether there was any hereditary history, because if there was hereditary history there would be much less chance of improvement than in cases where there was no such history. He was glad to find that Dr. Tuke had not discovered dementia in himself (Dr. Beach) and that he might still regard himself as a sane individual. Those interested in asylums like his own had an amount of interest in their cases which outsiders might not recognize. It was important and interesting for a nurse to find that a child on admission could not walk, but after a short time was able not

only to walk but to talk; and that a person admitted in a state of dribbling dementia became in time an industrial member, able to make boots and shoes or other articles of clothing, thus helping the asylums to become self-supporting institutions. It was important to remember that a mother who had an imbecile child had to keep at home and become a pauper, not being able to earn her living. On the other hand, if the child were removed from the mother's home, she would be able to earn her living and thus become a self-supporting member of society.

Dr. Stearns said he did not feel in a position to criticize the President's paper. He should rather say that it gave him greater pleasure to agree with his friend, who in some degree at least had been his instructor in that branch of medicine. He should have been glad, however, if there had been a stronger distinction made between the development of insanity in general and that form of it which he had called dementia. It appeared to him that there was a degree of degeneration in all forms of disease and in all forms of insanity, and that it would be exceedingly difficult to determine beforehand whether a case would develop into one of true dementia, or run into the secondary form of dementia which they sometimes termed stupor, from which patients often recovered. Like the previous speaker, he had been agreeably surprised to observe recoveries in cases that seemed to be hopeless—cases in which there had been but little mental manifestation for a long time. The point insisted upon by the President, that true dementia arose from adolescent insanity, was well argued, but that that kind of insanity should be regarded as the typical form, he was inclined to doubt. He thought that the typical form was that referred to by Dr. Norman, which he would term primary delusional insanity.

Dr. Rogers thought that the tone of the President's paper was pessimistic throughout. He appeared to regard dementia as incurable, and also as having an evil effect on the minds of the attendants. If an attendant started with the former view, the effect described might be produced, but they had all met with cases which had been looked upon as entirely hopeless which had ultimately recovered. If he were to say that every case of insanity was potentially curable, that might perhaps be going to the other extreme, but it would have a better effect upon attendants and others if they could look upon all cases of insanity as capable of being cured, however hopeless they might seem. He spoke of classes, not of individuals. When such a case recovered they were apt to throw the blame on their own diagnosis rather than on the nature of the case. That appeared to be the view of the President. But that appeared to him to be rather begging the question and fitting the diagnosis to the theory instead of adapting the theory to the facts. It was the same in regard to phthisis. A patient apparently got well after an experienced physician had pronounced him incurable and the diagnosis had been disputed and discredited, but subsequent post-mortem appearances had verified it by showing traces of old cavities in the lungs. He thought it was safest to say that there were a number of instances in which people who had been demented for a long time recovered under certain severe shocks or unaccustomed stimuli. That alone was sufficient to hold out the hope that any individual case might possibly recover. At any rate, if not scientifically accurate, it was a very great advantage for the attendant to take that view.

Dr. Rayner said that the clinical unity of dementia had been questioned by so many speakers that he should not like the discussion to pass without offering a protest against the pathological unity of dementia, which the President had so strongly insisted on. Of course it would be quite fair to urge that in the extreme degree of dementia it must depend upon the degeneration of the brain cells; but it appeared to him also that the dementia might be arrived at in other ways, as by primary disease in the vessels supplying the brain cells, or even the tissues surrounding them. Taking the analogy of disease of the spinal cord where dementia, so to speak, was arrived at, it would be seen that it was completed in different ways. He thought that they would also see in their clinical study

of dementia that it must be arrived at in different ways. It appeared from the statements of several speakers that persons who were apparently dements and who, under certain conditions, might have lived for years and then died as dements had under other conditions been aroused not only to temporary activity, but in some cases to absolute recovery. If dementia were due to absolute degeneration of the brain cells, it appeared to him that neither temporary activity nor permanent recovery would be possible.

Dr. Urquhart was sorry to hear it said by their President that they were to depart from that theory of insanity connected with the blood supply, which he thought fitted a great many cases of melancholia and mania very well. If they departed from it entirely, he thought they would be at a loss to account for the causation of such cases. If they were to blame the cells for all cases of insanity, were they therefore to say in regard to many cases of cardiac disease, where the circulation was impaired or disordered, that the circulation had no effect upon the cells and that the disordered circulation through the brain was not the cause of disease? The President had defined insanity as a "tendency to dementia" because a large percentage of cases of insanity ended in dementia. But might they not equally well define insanity as a "tendency to recovery" when they remembered the 40 or 50 per cent. of recoveries in asylum cases, without including those that never came under their notice or appeared in their tables? He observed that the President had placed in the second stage of the downward path of degeneration all artistic and literary people, but he for one could not follow him in that particular branch of his subject.

Sir Arthur Mitchell moved a vote of thanks to the President for his Address, which he characterized as a very remarkable one and full of strong original and fearless thinking.

Dr. Needham, in seconding the resolution, said that the paper bristled with points that led to a great deal of difference of opinion and excited a considerable amount of interest. They were all, however, to a great extent in agreement with the President, because he had stated so many facts and so many conclusions that were in accordance with those facts.

The motion was unanimously adopted, and the President, in acknowledging the compliment, said that he thought that the course he had adopted in inviting discussion had been amply justified by the result. He hoped that there would always be discussion and differences of opinion expressed in as kindly and considerate a way as they had been in the criticisms which had been passed upon his Address. He felt highly honoured in having been asked to take the Presidential chair, and had merely done his duty in bringing forward for discussion a subject to which he had devoted some thought and attention.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

PSYCHOLOGY SECTION.

University of Glasgow, August 8, 9, 10, 1888.

President, James C. Howden, M.D.; Vice-Presidents, James Rutherford, M.D.; Julius Mickle, M.D.; Honorary Secretaries, A. R. Urquhart, M.D., Perth; Alex. Newington, M.D., Ticehurst, Sussex.

This section was unusually well attended. The following gentlemen were present:—J. G. Anderson, F. H. Anderson, Robt. Anderson, M.B., Alfred Aplin, H. W. Arbuckle, J. H. Arbuckle, Fredk. V. Adams, Dr. Brodie, Fletcher Beach, Dr. Bateman, John Brown, M.D., Prof. Benj. Ball, Prof. Benedikt, Dr. Bateman, Dr. Clouston, Dr. Cossar, P. E. Campbell, G. Crichton, Dr. Davis Colley, Dr. Drury, Dr. Fox, R. Hingston Fox, D. M. Fadyen, Dr. John Grieve, Damer Harrisson, J. Hutchinson, Dr. Howden, Dr. Howard, Dr. Hughes, Dr. Ireland, J. O.

Jamieson, M.D., Dr. Keiller, Dr. Lawrence, Dr. Lyle, J. A. Masters, M. C. Myers, Hugh Murray, Allan Macnaughton, Dr. Mackenzie, Dr. W. Julius Mickle, P. Miller, Edwd. McMillen, Mackinlay, G. W. Mould, Dr. Murray, Jas. L. Nevin, Dr. A. Newington, Dr. Oliphant, Dr. K. Oswald, Dr. Orr, Dr. Rygale, Dr. Richardson, Rich. A. D. Robb, Dr. Fredk. T. Roberts, Dr. James Rutherford, J. Mosley Rooks, E. Reynolds, Hugh M. Renen, Dr. Savage, Dr. Stevenson, G. E. Shuttleworth, Dr. Smith, Dr. Andrew Smith, J. Stewart, Dr. Shuttleworth, Dr. Scott, Wm. Sloan, M.D., T. F. Tannahill, Dr. Hack Tuke, Dr. Batty Tuke, Dr. Turnbull, Dr. S. M. Thompson, Dr. Urquhart, James Watson, John Wilson, Dr. Henry Anglin Whitelock, Dr. F. Warner, J. Bywater Ward, Dr. Oscar Woods, Dr. Walker, James Yates, M.D., Dr. Yellowlees.

WEDNESDAY, AUGUST 8.

Dr. HOWDEN delivered the Presidential Address, which is printed in full in the "British Medical Journal" of September 1st. He took for his subject "The Treatment of Insanity." He went as far back as the dark ages of witchcraft and superstition, and traced the later rise and development of the experimental and expectant methods. The present-day fatalism of some medical men he ascribed to the indiscriminate drugging of previous times, and he expressed the belief that we were too pessimistic in our hopes and aspirations; that, for example, we were too apt to regard general paralysis of the insane as an incurable disease. He alluded with satisfaction to the great advantage in the study and treatment of insanity of a trained school of attendants, and the advances which have been made in recent years in this direction. The so-called moral treatment he had something clever to say of by the way. He did not regard the term as a happy one, and preferred to call it mental treatment. The phrase moral treatment was too high sounding and pharisaical, and suggested the idea that all other kinds of treatment were immoral. The prevention of insanity in its relation to civilization was then spoken of, and lastly Dr. Howden recounted the changes that had taken place in Scottish asylums within his experience of thirty-five years, and spoke in warm terms of approval of the liberal encouragement given by the General Board of Lunacy, Scotland, to medical superintendents in the way of individualizing asylum work.

Dr. TURNBULL, Fife and Kinross Asylum, read a paper entitled "Some Remarks on Boarding-Out as a Provision for Pauper Insane." (See *ante*, p. 366.)

In the discussion which followed, Dr. YELLOWLEES thanked Dr. Turnbull for an admirable and temperate defence of the boarding-out system. He said that no one would question the value of boarding-out pauper patients, given suitable cases, suitable guardians, and proper supervision; but that such a combination was very difficult to obtain, and in some districts, where high wages were earned, simply impossible. The patients were not received by guardians from pure benevolence, but they expected to profit by their boarders, and only in a poor home could the profit made out of 6s. or 7s. a week be an object if the patient were not neglected. Even at the best, Dr. Turnbull's paper showed that only 16 per cent. of our asylum population could thus be provided for, and such an outlet was utterly inadequate as a provision for the constant accumulation of chronic insane in our asylum wards. Of course it was a very welcome relief so far as it went, but something more was needful. He believed that the insane of any area should be received into small "cure" asylums—as numerous as the area might require—from which the patients whose recovery had become doubtful should be transferred to a large chronic asylum, or restored to friends, or boarded-out with strangers, as might be found best. Dr. Yellowlees gave some details as to the mode of providing for such patients in the United States as seen at the asylums at Willard and at Middletown. With the one drawback of being too costly, such provision was admirable, and boarding-out was there found to be impossible.

Dr. HACK TUKE said that what struck him forcibly was that, after eliminating

the unsuitable cases from the chronic insane, a comparatively small number remained to be provided for. He thought that while we looked to the interests of patients and the ratepayers, we were too apt to overlook the moral injury which might be done to the family, especially the younger members, with whom the patient was placed. It appeared that the Scotch Lunacy Board regretted the number now aggregated together at Kennoway, etc. If so, the difficulty of meeting the evils of the great accumulation of chronic cases in asylums was evident, and the advantages to be derived from boarding-out proportionately limited. At the same time, he fully recognized the value of the cautious use of boarding-out, so long as careful and frequent inspection was in force. In England there were 6,000 pauper lunatics and idiots in family life, placed under the official inspection of local parish medical men, but without the supervision of the Lunacy Board. In this respect there was a marked difference between the Scotch and English systems of boarding-out. He (Dr. Tuke) had visited Gheel, and no doubt there was much that was unsatisfactory as well as satisfactory in that system, but it would not be fair to compare it to that in force in Scotland, unless the latter went on increasing until there was one-third of the population of the colony insane. It was clear that many abuses might arise in the one case and not in the other. On the other hand, it should in fairness be remembered that there was a good asylum in the midst of the Gheel colony, so that cases proving unsuitable for the village life could at once be removed to the asylum. He thought a strong argument in favour of the boarding-out system was its greater cheapness, for so long as no mischief was done to families, it was a duty to lessen the present enormous expense of our county and borough asylums by a recourse to more economic methods of caring for the chronic insane.

Dr. Stearns said that when in this country several years since it was his good fortune to visit one of the colonies of the boarded-out insane, where he had the fullest opportunity to observe its operation. He saw no reason to think that the plan was not a successful one in Scotland, and on his return to the United States he had occasion to consider its desirability there. He was forced, however, to the conclusion that, aside from any other objections to the plan there, there existed this insurpassable one, namely, the impossibility of securing reliable and proper persons to take charge of them, except at such expense as would render such provision impracticable. In the United States wages was so high that reliable persons and those possessed of the requisite requirements could utilize their time to much better advantage. Attention was therefore turned to other directions. This had been in the form of annexes to asylums and hospitals already existing. It was first instituted at Willard, New York, by Dr. Chapin. Provision had been made there for some fifteen hundred of the various classes of the chronic insane with some six hundred or more acres of land, which provided occupation. A somewhat similar plan had been adopted at the State Hospital at Middletown, Conn. Two annexes had been erected there—one for each sex—with capacity for 300 patients. They were in the immediate vicinity of the Central Hospital, where they were under the direct care and supervision of a separate resident medical officer for each annexe, who alone decided as to the fitness of the patient to be employed. He was happy to be able to report that this plan appeared to have worked exceedingly well, so far as related to an elimination from the hospital proper of a considerable number of the chronic insane, thus providing for a like number of the acute; it provided for all that could be secured, if these patients were to be removed to houses in the country. It certainly provided for many of the chronic insane who would not be of a proper character to be boarded-out. And, again, it provided for a system of care and inspection vastly more efficient than would be possible for boarded-out patients. Finally, the expense was much less than would be the case if such cases were boarded in families in the conditions of society in the United States. He regretted to say that in the hospital at Middletown there had not been separate accounts kept of the expense of providing for the two

classes, so that he was unable to state what this would be. He might, however, say that it was originally thought that the expense of care of the mild chronic insane would be not in excess of two-thirds that of the more acute and excited chronic insane; but in consequence of some defect of the law such separate accounts had not been required. He desired to express his thanks to Dr. Turnbull for his very thoughtful and interesting paper.

Mr. Mould said, with reference to the distinction which Dr. Yellowlees had pointed out—namely, boarding-out with individuals and families not connected with the asylum, and those who were lodged out in houses owned or ruled by the asylum authorities—that two-thirds of his patients—that is, about 200—were lodged out in houses in the neighbourhood or at a distance. They were under careful supervision, but were boarded and cared for by the asylum authorities, being frequently visited by the medical officers; and with such precautions the system answered well. The cost was considerable, but the effect was good. The Commissioners visited such patients, and care was taken that no patient was allowed to live in the outside houses unless they could be cared for without either danger to themselves or others.

Dr. Richardson said that, boarding-out not yet having been formally sanctioned by the Legislature of the Isle of Man, it had not yet been so fully developed there as it might be. He might, however, notice one case of a male patient who was located with a farmer. He cost the asylum nothing excepting his supervision, and received from his employer a sum of 3s. per week in money, in addition to being fed. There was one aspect of boarding-out which he had always regarded with regret—namely, that frequently it was the most useful patients who were most suitable for boarding-out, and that consequently, on their withdrawal from the asylum, perhaps more paid help was required. Counterbalancing this, however, was the fact that when a useful patient was removed it was found that the attendant would generally train up another patient to take the place of the one removed, and therefore that even in this respect benefit to the asylum community ensued.

Dr. Clouston said that in the Royal Edinburgh Asylum, during the fifteen years he had been in charge of it, the pauper department had not increased, and this had been entirely owing to the energetic and intelligent system of boarding-out adopted by the Edinburgh inspectors of the poor. The result of this had been that the money spent on the pauper department during that time (£35,000) had been spent in developing hospital and admission departments or reconstruction, and generally in making the institution more medical and more curative, and not in providing those endless annexes for incurable, mindless dements as they had had to do in the English and Scotch counties. They had 500 pauper patients, and 250 yearly admissions. Therefore, from the ratepayers', the physicians', and the administrative point of view, their boarding-out system had been useful. He believed the patients were well cared for, and those who turned out to be not suitable were sent back without much cost or trouble. He did not pretend to be sure about the cases that were suitable for boarding-out when he was selecting them in the asylum wards. Many cases he had thought most doubtful had turned out well as boarded-out cases, while some of those he thought most suitable had to be sent back.

Dr. Watson said there was a danger of losing sight of the fact that the guardians of boarded-out patients were very poor, who hoped to benefit pecuniarily by the patients, and that they were therefore doubtful persons to whom the charge of their lunatics should be given. For instance, according to Dr. Turnbull, in Shetland, where the people were poor, 53 per cent. of the insane were boarded-out; whereas in Nairn, where the people were well-to-do, the proportion boarded-out was only 8 per cent.

Dr. Rogers considered that the question was chiefly a financial one. Where wages were high and employment constant it did not pay persons of the labouring class to take lunatic boarders. The number of patients boarded-out under supervision of parish authorities, and also the number in workhouses, had

materially fallen off since the granting of the weekly allowance of 4s. per week for lunatics in asylums, which was not extended to those in workhouses or boarded-out. This was especially marked in the last-named class, which had fallen in Lancashire since the grant was first given to one-fourth of what it was. The falling off of the number in the workhouses might be assumed to be due to this cause, because, by the addition of the 4s., the cost in asylums and workhouses was equalized, the guardians got rid of a troublesome class of inmates, and could utilize the space for others. Referring to Dr. Clouston's observations, Dr. Rogers wished to know if it was not a fact that the elimination of so many chronic quiet patients (such as were suitable for boarding-out) not only increased the cost of those that remained in the asylum, but also, by associating a larger proportion of the more excited, destructive, and violent cases, did not increase the general excitement of the asylum wards, and so act prejudicially on those who were left behind, as patients of a quiet demented class were not only useful workers, but acted also as a diluent in moderating the turbulence of the more excited class. In Lancashire the subject had received much attention, and he (Dr. Rogers) believed that it had been unanimously settled in favour of erecting annexes for the accommodation of the chronic class of patients in connection with each of the county asylums.

Dr. Turnbull, in replying, argued that failures or shortcomings in the system should not be taken as implying that boarding-out ought not to be practised at all. He believed that it was capable of being carried out in districts where at present it was believed to be impossible, or, at any rate, was not practised. He thought the remarks made by different members in the discussion showed that our general lunacy administration should, like our asylums, include various modes of provision, so as to meet the various requirements of our patients, and that boarding-out was one mode of provision which should be maintained, as it was exceedingly beneficial in improving the mental state of one class of the insane. Boarding-out existed in all countries, and always would exist; the special feature in Scotland was that it was systematic and brought under the inspection of a central authority.

Dr. Wiglesworth, Rainhill Asylum, read a paper "On the Pathology of Delusional Insanity (Monomania)." (See *ante*, p. 376.)

In the discussion which followed,

Dr. Savage said that monomania used to be looked upon as often the result of degeneration due to mania, or more often melancholia. Dr. Wiglesworth preferred to consider monomania as the equivalent to delusional insanity. He (Dr. Savage) doubted whether sense-perversion would produce delusional insanity in any but a neurotic person. He agreed that sense-perversion preceded delusions. He met with many cases with deafness and delusional insanity; middle-aged people developed deafness and hallucinations of hearing, suspicion, dread, and fear of persecution, and might finally become possessed by ideas of grandeur. Locomotor ataxy provided many interesting experiences of sense-perversions, and was worth all our efforts at investigating the mental accompaniments. He agreed that in delusional insanity, memory and other mental faculties might often be intact.

Dr. Mickle differed from Dr. Wiglesworth as to monomania always being preceded by and based upon hallucinations of the special senses. He believed that in many cases of monomania hallucinations did not precede, whether they subsequently occurred or not. In some cases of monomania there were no hallucinations at the onset; there was often disorder of the inward feeling—a perversion of the normal feeling of existence.

Dr. Conolly Norman said that it appeared to him that monomania frequently occurred without hallucination. He thought the disease was essentially a degenerative one, arising most often in the hereditarily disposed or those who had acquired a predisposition. It was akin to idiocy; it also often followed on neurasthenia. This might in part account for its tendency to be associated with tabes dorsalis, the same cause underlying both. Its distinctive clinical feature

he held to be a tendency to systematized and organized delusion with relative integrity of the higher intellectual functions. He instanced cases in elderly men of systematized delusions of conjugal infidelity. It must be remembered that the integrity of the higher functions was only relative. The highest function of all, the judgment, was profoundly impaired. Believing, as he did, that monomania was a disease that could hardly be acquired by a brain that had not been abnormally constituted for a length of time, he could not accept Dr. Wiglesworth's views. Dr. Norman referred to the investigations of Dr. Charles K. Mills, who held that the brains of monomaniacs showed certain peculiarities of conformation—undue width of the Sylvian fissure, deficiency of the annectant gyri, prolongation of the parieto-occipital fissure over the external surface of the hemisphere, etc. Such profound and essential alterations in the conformation of the brain were rather, perhaps, what one would expect, considering the essential nature of the malady.

Thursday, August 9.

Dr. Campbell Clark, Glasgow District Asylum, introduced a discussion on "The Sexual and Reproductive Functions—Normal and Perverted—in relation to Insanity." (See *ante*, p. 383.)

Dr. Savage, Bethlem, followed with a paper on "Mental Disorders associated with Marriage Engagements." (See *ante*, p. 394.)

The discussion was opened by Dr. Clouston, who said it would be necessary to unite the experience and knowledge of general practitioners of medicine and gynæcologists to have a satisfactory discussion on the most important subjects, so very ably treated by Drs. Campbell Clark and Savage. The mental symptoms of puberty and adolescence could not be dissociated from the headaches, the chloroses, the choreas, the epilepsies, and the trophic deficiencies of the period. All this came from the same cause—a want of full developmental force in highly-organized and hereditarily weak brains. The connections of disturbed menstruation and insanity might be divided into two, the acute mania of sudden suppression and the melancholia of amenorrhœa and menorrhagia. In regard to the causative connections of masturbation with insanity it comprised, in a sentence, the neurotic. Youths might become insane from masturbation. The strong country bumpkin might masturbate as much as he liked, and no permanent harm would come of it. He advocated paraldehyde for sleeplessness as the very best hypnotic we had, whether there was mental disease or not. And whenever they had a high temperature and puerperal insanity large doses of quinine (10 to 20 grains), frequently repeated, was by far the best remedy.

Dr. Wiglesworth said that with reference to the question of association of puerperal insanity and septicæmia, he should like to bear witness to the fact that a large proportion of cases of mania arose in connection with this condition. As regards masturbation and insanity he should have liked to have heard more remarks about masturbation produced by insanity. He had very frequently seen temporary masturbation in epileptics after their fits—in patients who were in all respects correct at other times; and he thought, in a large number of cases, masturbation was the effect of insanity and not its cause.

Dr. Campbell (Garlands) thanked Dr. Savage for his very excellent paper, but confessed his entire disability to discuss such a paper without further consideration. Such a paper should be carefully read before it could be discussed. As regards some of the remarks made by Dr. Clouston, Dr. Campbell said his puerperal cases rarely showed any signs of septicæmia. The temperature rarely kept up for any time; his experience, as given in the paper of Dr. Macleod of Beverley, had been very fortunate in puerperal mania. As regards reduction of temperature by large doses of quinine, Dr. Campbell questioned the benefit to the patient, and this after largely using the treatment in a considerable number of cases of pneumonia. He had used paraldehyde pretty largely. He thought it one of the best hypnotics we had; its taste was against it, but if given in rum

this was not noticed. He had also used urethane, but did not think so highly of it.

Mr. Alfred Aplin rose to seek information respecting the connection between self-abuse and true ozœna. It was stated in another Section yesterday that ozœna was a very constant accompaniment of this vice, especially so in women. During his twelve years' experience of asylum practice he had met with numerous cases of hallucinations of the sense of smell, but never with true ozœna, except in a few cases which were due to syphilis or to injury to the nasal bones.

Dr. Turnbull referred to a case associated with amenorrhœa of long standing, in which the use of permanganate of potash had proved of service, and in which the patient ultimately recovered; and to a case of an epileptic youth, who averred that the act of masturbation gave great relief to the feelings of heaviness and confusion in the head which came on him periodically. He mentioned also the case of an epileptic woman, who had at one time intense suicidal impulse, and attempted to cut off her head. She afterwards married, and during her pregnancy had an attack of very acute mania; she was quite delirious during the birth of her child, but immediately afterwards improved very rapidly, and soon recovered from the maniacal state. His limited experience of paraldehyde had so far not been so favourable as Dr. Clouston's, but he would give it a further trial.

Dr. Savage said there was no evidence that amenorrhœa depended in any way on insanity causally. In some cases obstinate amenorrhœa followed with mental weakness. In puerperal insanity he recommended a return to domestic life, with precautions against pregnancy. He believed masturbation in boys and girls might arise spontaneously. He had had a graphic description of this by a female patient. At the climacteric and at other ages, with sexual perversion there were often hallucinations of smell, and Sir A. Mitchell recognized this. He had found salix nigra useful in some cases of masturbation, but it was not useful in many weak-minded young men. Its effect was useful in some who were able to feel disgust, and sermons and salix nigra were both useful in these cases. He saw a good many cases of insanity of pregnancy, and he divided them into two classes—those before the fourth month, which generally got well at "quickening;" the other went on to insanity of parturition. Transitory mania was of very great medico-legal interest. Women might be unconsciously delivered. He had known some cases following eclampsia, but most of those reported were hysterical. He looked on sleeplessness and bad dreams as early symptoms and very general. He had seen septic causes giving rise to puerperal insanity.

Papers were also read by Dr. Clouston (Edinburgh Royal Asylum) on "The Principles of Construction and Arrangement of an Asylum for Private Patients of the Richer Classes," and by Dr. Francis Warner on "Methods of Examining Children in Schools as to the Development and Condition of the Brain." The latter paper and Dr. Warner's motion that a Committee should be appointed to inquire into the subject treated in the paper excited a prolonged discussion, which occupied much of the time on *Friday*. The work of the Session was brought to a close by papers on "Cases of Disease of the Brain in Imbeciles," by Dr. Fletcher Beach; on "Hallucinations," by Dr. Hack Tuke; on "Four Cases of 'Folie à Deux' in the same Family," by Dr. Oscar Woods; on "Antifebrin," by Dr. W. Julius Mickle; and on "The Forms of the Skull and its Measurement," by Dr. Benedikt.

The MSS. of most of these papers are in the hands of the Editors, and they will appear in the Journal as space permits, and the discussions they gave rise to will be appended. Our best thanks are due to the Editor of the "British Medical Journal" for his kindness in furnishing and permitting us to use full notes of the discussion.

Names of Candidates who passed the Examination for the Certificate of Efficiency in Psychological Medicine, held at Bethlem Hospital, July 23rd and 24th, 1888.

Examiners:
D. Hack Tuke, M.D.
Geo. H. Savage, M.D.

Jane Elizabeth Waterston, M.D.Brux., L.K.Q.C.P.I., L.M., L.R.C.S.Ed., Cape Town, South Africa.

William Dobree Calvert, L.R.C.P., M.R.C.S.E., St. Luke's Hospital, City Road.

Henry John Macevoy, M.R.C.S., L.R.C.P., B.Sc.Lond., Bethlem Royal Hospital, S.E.

Edwin Goodall, M.B. and B.S.Lond., M.R.C.S., L.R.C.P., Bethlem Royal Hospital, S.E.

Names of Candidates who passed the Examination for the Certificate of Efficiency in Psychological Medicine, held in Dublin, July 12th, 1888.

Examiners:
Conolly Norman, F.R.C.S.
Ringrose Atkins, M.D.

George Patrick Cope, L.K.Q.C.P. and L.R.C.S.I., Senior Assistant Medical Officer, Richmond Asylum, Dublin.

Michael James Nolan, L.K.Q.C.P. and L.R.C.S.I., Junior Assistant Medical Officer, Richmond Asylum, Dublin.

Richard R. Leeper, L.K.Q.C.P. and L.R.C.S.I., Hampstead House, Drumcondra, Dublin.

Names of Candidates who passed the Examination for the Certificate of Efficiency in Psychological Medicine, held at the Royal Edinburgh Asylum, July 18th and 19th, 1888.

Examiners:
T. S. Clouston, M.D.
J. Rutherford, M.D.

Armour, E. F., M.A., M.B., C.M.Edin.; Bruce, John; Chapman, H. C., M.B.Lond.; Evans, P. C.; Laing, J. H. W., M.A., B.Sc.; Rice, P. J., M.D.; Turner, M. A., M.B.; Wilson, G. R.

N.B.—For information regarding the ensuing Examinations, apply to the Secretaries.

"THE TIMES" AND LUNACY STATISTICS.

The following letter was forwarded to "The Times" in consequence of certain misleading statements made in their article on the Report of the Lunacy Commissioners, which appeared on the 16th August. Our first intention was to reprint the article in this Journal, but it seems undesirable to perpetuate these and other misstatements to which it commits itself. It is a pity that the writer had not, before taking his pen in hand, studied Dr. Lockhart Robertson's article "On the alleged increase of insanity" written some years ago, as well as others on the same subject more recently published in this Journal. It is greatly to be regretted

that such superficial assertions should be made, and that thus fallacies, which have been again and again exposed, should be widely circulated and more or less credited in consequence. The writer touches upon the advantages arising out of not appointing men to be medical superintendents who have been already trained in asylums as assistant medical officers. The case of Dr. Conolly is adduced in support of this opinion. We do not think this is really to the point. Conolly states distinctly that he acquired his ideas of non-restraint from the Lincoln Asylum before he went to Hanwell, and carried them out on a larger scale than previously. But were it otherwise, we do not consider that the argument has any force at the present day, when there are a vastly greater number of assistant medical officers thoroughly suitable for promotion than was the case in the days of Conolly. There are exceptions to every rule, and we admit that in some instances good has been done by the treatment of the insane being undertaken by those who have "brought a fresh mind to the work." All we say is, that other things equal, the preference should be given to those who have previously had experience in the treatment of lunatics.—Eds.

Lunacy Statistics.

To the Editor of "The Times."

Sir,—In your issue of the 16th inst., commenting on the recent report of the Commissioners in Lunacy, it is stated to be "unquestionably true" that insanity is upon the increase. Allow me to say that this popular notion *has* been called in question. Moreover, it is "unquestionably true" that the official statistics of lunacy do not support this opinion. They simply show that a larger number of cases are cared for and treated now than formerly—say in 1859. The confusion arises from failing to distinguish beteen the *existing* and the *occurring* cases of lunacy, in proportion to the population. It is, of course, open to anyone to allow himself to be guided by his own impressions in regard to the increase of mental disorders, but he cannot quote statistics in proof of this position. The Commissioners in Lunacy have themselves stated that their statistical tables do not warrant any such inference.

The same source of fallacy vitiates the conclusion that more women than men become insane. In your article a reason is advanced in order to explain this supposed greater liability of the female sex. It is unnecessary to seek for a reason to explain that which does not exist. The fact that at the beginning of the year the male lunatics were one to every 370 of the male population, while the female lunatics were one to every 326 of the female population, is absolutely worthless as proving the relative liability of women to insanity. There are other points in your article which tempt me to offer adverse criticism, and on which the great body of alienists in this country hold opposite opinions, but I prefer to restrict my remarks to the fallacy which has led to conclusions which, whether correct or not, derive no support from the statistics in the Blue Books of the Lunacy Commissioners.

I am, etc.,

D. Hack Tuke, M.D.

63, Welbeck Street, Cavendish Square, W.
August 25th.

ASSISTANT MEDICAL OFFICERS OF IRISH ASYLUMS.

The following letter was received by the General Secretary in reply to one addressed to His Excellency, the Viceroy of Ireland, enclosing the resolution in support of the claims to preferment of the Assistant Medical Officers of Irish Asylums, passed at a recent meeting of the Medico-Psychological Association :—

Vice-Regal Lodge, Dublin,
25th May, 1888.

Sir,—I am directed by His Excellency to acknowledge the receipt of your letter of the 22nd inst. together with a copy of a resolution passed at a meeting of the Medico-Psychological Association of Great Britain and Ireland. I am to state that His Excellency concurs with the opinion expressed in the resolution as to the advisability of appointing, when possible, gentlemen who have had a special training to the offices of Medical Superintendents to the Asylums. This may be seen from His Excellency's recent action in appointing Dr. W. Z. Myles, Senior Assistant Medical Superintendent, Richmond Asylum, to the post of Medical Resident Superintendent to Kilkenny Asylum.

I am, Sir,
Your obedient Servant,
Adolphus Vane Tempest.

Henry Rayner, Esq., M.D., etc.

Obituary.

JOHN ALFRED LUSH, M.D., F.R.C.P.Lond.

The decease of Dr. Lush was not unexpected, as he had been the subject of cardiac disease for some years, and found it necessary to be extremely careful in regard to his health.

He was born in 1815, and was the eldest son of John Lush, Esq., of Berwick St. John, Wilts. His mother was the daughter of James Killoway, Esq., of the same county. He was the cousin of the late Mr. Justice Lush. In 1853 he married the daughter of the late Dr. W. C. Finch, of Fisherton House Asylum, Salisbury.

He commenced practice as a surgeon at East Knowle, Wilts, but after about four years removed to Salisbury, where he successfully carried on his profession until 1862, when he joined his cousin and brother-in-law, Dr. Finch, in the management of the above private asylum.

He sat as member of Parliament for Salisbury, on the Liberal side, from 1868 to 1880, when he retired in consequence of ill-health and came to reside in London, retaining a keen interest in politics and his loyalty to the ex-Premier. Had his health allowed of it, he would have remained M.P. for Salisbury, as there is no doubt the constituency would have re-elected him.

During his Parliamentary career, Dr. Lush took an active part in questions brought forward in the House of Commons affecting the medical profession, and more especially those employed in the care and treatment of the insane. In 1877-78 he was a member of the Select Committee to inquire into the alleged abuses existing in asylums in England and the adequacy of the law to prevent them. He was an active member of the Parliamentary Committee of the Medico-Psychological Association, and was present at its last meeting. He was President of the Association in 1879.

He died August 4th, 1888.

JOHN BARRON, M.D.

We record with regret the untimely death of Dr. John Barron, late Assistant Medical Officer in the Berks County Asylum. Dr. Barron was educated in Aberdeen, at the Grammar School and the University, where he took the degrees of A.M. 1872, M.B. and C.M. 1875, and M.D. in 1877. Thereafter he proceeded to Paris, where he continued his medical studies for some months. He served for a short period in the P. and O. Company's vessels, and in 1877 was appointed to his post in the Berks County Asylum under the late Dr. Gilland, where he continued until 1885 when he had to resign on account of ill-health. The Committee again secured his services during the period that intervened

between Dr. Gilland's death and Mr. Douty's appointment, and recorded in fitting terms their appreciation of Dr. Barron's worth and ability. The memory of his bright and sunny nature, his indomitable spirit despite difficulties that would have overwhelmed one less courageous and happily minded, will ever be cherished by those whom good fortune brought into contact with him. Dr. Barron formed many friendships in the neighbourhood where he did his duty so nobly and so well. The last of his family, dying at the early age of 36, he yet had friends who were as brothers to him, and the many kindnesses shown to him throughout his painful later years, and the many tributes of respect paid to his memory by his open grave are records of the close of a life spent in strenuous endeavour for the weal of his neighbours.

A. R. U.

Appointments.

Anderson, Wm. A., M.B.Edin., appointed Medical Officer to the Bucks County Asylum, Aylesbury.

Chambers, James, M.A., M.D., M.C., appointed Assistant Medical Superintendent of the Cumberland and Westmoreland Asylum, Carlisle.

Cope, G. P., L.K.Q.C.P.I., L.R.C.S.I., appointed Senior Assistant Medical Officer to the Richmond District Lunatic Asylum, Dublin.

Cumming, Robt., M.B., C.M.Aber., appointed Assistant Medical Officer to the Perth District Asylum, Murthly.

Donaldson, W. J., A.B., M.B., B.Ch. Univ. Dublin, appointed Assistant Medical Officer to the Camberwell House Asylum, London.

Ezard, E. H., M.B. and C.M.Ed., B.Sc., appointed Junior Assistant Physician to Royal Edinburgh Asylum.

Hacon, W. E., L.R.C.P.Lond., has retired (after 7 years) from the Superintendency of the Hospital for the Insane, Christchurch, New Zealand, on a pension of £488, and has been appointed Hon. Physician to the Christchurch Hospital.

Macphail, Saml. R., M.D., appointed Medical Superintendent of Derby Borough Asylum.

Nolan, H. P., M.D.Glas., L.F.P.S.Glas., L.A.H.Dub., appointed Junior Assistant Medical Officer of the Richmond District Asylum, Dublin.

O'Brien, J. A., M.B.Glas., G.C.M., appointed Medical Superintendent of Sunbury Lunatic Asylum, Australia.

Owen, A. D., appointed Resident Clinical Assistant to Rubery Hill Asylum.

Raw, Nathan, M.B., B.S.Durh., appointed Assistant Medical Officer to the Kent County Asylum, Barming Heath, Maidstone.

Simpson, Alex., M.B., C.M.Aberd., appointed Assistant Medical Officer to the City of Newcastle-upon-Tyne Lunatic Asylum.

Smith, Percy, M.D., B.S.Lond., M.R.C.P.Lond., appointed Resident Physician and Medical Superintendent to Bethlem Royal Hospital, *vice* G. H. Savage, M.D.Lond., F.R.C.P.Lond., resigned.

Watkins, W. L., L.K.Q.C.P., L.M., L.R.C.S.Irel., appointed Medical Superintendent of Yarrow Bend Lunatic Asylum, Australia.

THE JOURNAL OF MENTAL SCIENCE.

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PART 1.—ORIGINAL ARTICLES.

The Cairo Lunatic Asylum, 1888. By Dr. F. M. SANDWITH,* Hon. Physician, Kasr el Aini Hospital.

Makrizy, an Arabic historian, who wrote in the year 1421, tells us of the first hospital and lunatic wards with which Egypt was endowed. It appears that in 1278, A.D., a mamaluke called Kalaoon was attacked by a violent colic at Damascus, and, being cured by medicines from the hospital there, he vowed in gratitude that he would build a similar hospital should he ever come to the throne of Egypt. The following year he commenced a reign of eleven years, during which he seized Tripoli, recaptured Damascus, and governed his subjects at home by alternate acts of cruelty and beneficence. In one of his fits of anger he is said to have delivered up Cairo to sword and plunder for three days. He bartered one of his buildings for an old palace, turned the latter into a hospital, and built close by a school, and a mosque for his own burial place. His architect worked with such energy that the whole was completed in less than twelve months; but his excessive zeal made him unpopular with the ecclesiastics of the day. This is not to be wondered at, for he compelled all the artisans to work exclusively for him; he looted the citadel of Roda of granite and marble columns, and he used to stand on the scaffolds himself, and, by the aid of mamalukes in the streets, compelled passers by of every rank to carry stones for the building, so that no one would come that way if he could help it! Kalaoon endowed the hospital with money for wards and out-patients, and desired that all should make use of it—rich and poor, great and small, bond and free. His arrangements included doctors

* For descriptions of the former Cairo Asylum see "Journal of Mental Science," April, 1879, being reports of visits by A. R. Urquhart, M.D. (with plan), and W. S. Tuke, M.R.C.S.

with fixed salaries, male and female nurses, beds and bed-clothes, special wards for fevers, ophthalmia, wounds, diarrhœa, obstetrics, and phthisis, kitchen, wine, dispensary and medicines, and even a medical lecture-room. Fifty readers of the Koran were provided for the mosque-tomb, to lecture to thirty students of theology belonging to all the four sects, also a library with six eunuch attendants, and a school for orphan children.

The Sultan Kalaoon evidently intended his gift to be a general hospital, but its traditional reputation is chiefly that of a madhouse.

Other Arab historians, quoted in the "Description de l'Egypte" (Vol. xviii., y. p. 321), report that the physicians gathered from different parts of the East were treated with magnificence; that each patient cost daily a piece of gold (dinar), and had two attendants; that those unable to sleep were carried into a separate room, where harmonious music was played to them, or, if they preferred it, skilled story-tellers were at their service.

Convalescent lunatics were separated from the others, were encouraged with the sight of dancing and light comedy, and, upon being discharged cured, were each presented with five gold pieces. A curious old map, with the date of 1593, describes the madhouse as possessed of "very great revenue." In 1798 it had (on paper) an income sufficient for its wants, including a revenue from the sale of barley, and a vested interest in the concoction of treacle. But successive generations of careless and rapacious Turks and mamalukes had robbed it of all its glory. In that year M. Jomard visited it, and found 60 sick people and 10 insane. The former were crouching on the ground floor, without beds, furniture, or protection from the weather; the latter were in barred cages, each chained by the neck, the women being naked, or nearly so.

In 1800 Napoleon sent Dr. Desgenettes to visit it, and suggest improvements. He speaks * of accommodation for 100 patients, though there were only 25 wooden beds, with bad mattresses, and 50 stone couches, pierced with holes to allow drainage of the occupant's excreta.

There were 27 sick and 14 lunatics. The former were either blind, or had lost their noses (lupus?), with the exception of one woman, who suffered from some acute disease. They received no attention beyond an irregular

* "Mémoires sur l'Egypte," Paris, 1803, y. p. 49.

supply of bread, rice, and lentil soup, and seemed quite resigned to their miserable surroundings. On the other side of a high wall were seven male and seven female lunatics. The men were old and melancholic, though one young man had acute mania, and "roared like a lion." Both men and women were chained to the wall, and most of the women were veiled, but one of them, a young and beautiful girl, manacled and almost naked, seemed to the visitor to be petitioning him for release; her case was investigated, and she was discharged as not being insane.

Of this historical old madhouse nothing now remains but an open court, surrounded by columns, where stood the old kitchen and the diminutive cells in which the lunatics were once confined.

The mosque-tomb is still in good preservation, and is frequented on Saturdays by dyspeptic peasants, who rub half a lemon upon two of the columns, and then apply it to the tongue. A block of red stone is also kept in the mosque, and a potent remedy for women's diseases consists in drinking water which has been discoloured by rubbing the stone. After 1800 I can hear nothing more of the Cairo lunatics until about 1856, when they would seem to have been removed to a warehouse on the Nile, in the Boulak quarter of the town. Here they were visited in 1877-8 by Dr. A. R. Urquhart and Mr. W. S. Tuke, who, in the pages of this Journal, described some of the horrors they saw. Before reading their papers I had more than once visited the now empty warehouse, and imagine that their accounts are almost less terrible than the reality at that time was. They tell of 200 hopeless lunatics almost naked, of fierce sun and unbearable stench, of conjoined latrine and drinking water, of lumber-rooms filled with decaying bedding, of excited cases barred in cages, which were kept in order by the keeper's courbash, of ward floor and walls smeared with filth and urine, of a noisy lunatic loaded with heavy chains on waist and ankles, and of an entire absence of statistics or even knowledge as to how many inmates were then under treatment. Dr. Urquhart concludes thus:—"The whole place is so utterly beyond the ken of civilization that it remains as hideous a blot on the earth's surface as is to be found even in the Dark Continent." Mr. Tuke's visit was in December, 1878. He saw squalor, but not dirt, and heard of strait waistcoats, but was told that no chains were ever used.

In 1880 the lunatics were removed from the warehouse in

Boulak to the remains of a palace on the edge of the desert, in the Abbassiyeh suburb of Cairo. This red palace was inhabited by some of the present Royal Family until 1878, when it was destroyed by fire, the chief part of it having been built of wood. The original palace cost a quarter of a million, held 250 retainers, and had beautifully-furnished rooms. The part which has been the lunatic asylum since 1880 used to be the quarters of the black slave girls. In 1883, during the cholera epidemic, some unexpected visits were made by myself and other Englishmen to the asylum, in consequence of erroneous reports that cholera cases were being concealed among the inmates. All possible difficulties were put in the way of our entrance, and we were shocked, but hardly surprised, at the state in which the lunatics were found. Filth, hunger, chains, nudity, and courbash met us at every point. But during that autumn the Government was battling with cholera, and could hardly be expected to reform its asylum.

In 1884 the chiefs of the Sanitary Department, which controls all State hospitals and the one asylum, retired, and a native Pasha and myself were appointed in their stead. So soon as other work permitted I directed my attention to the lunatics.

I found about 240 men and 60 women, clothed in rags, sitting all day long upon their beds, without exercise and without occupation. Any men who had the reputation of having been dangerous were made to wear chains similar to those used in Egypt for hard labour convicts. These chains are six feet long, are fastened by a key round both ankles, and weigh 5¾lbs. On the ground floor, with stone pavement, were the dormitories—some excellent rooms on the first floor being unused; and in a secluded corner of the ground floor, on the male side, were four dark, barred dungeons, each provided with a central hole leading direct into a cesspool beneath. In the walls and floors of these dungeons were fixed iron rings for fastening the ankles, and either the waist or the wrists of the unfortunate patient; while under him was placed a wooden plank, with a red leather cushion for his head fastened to it. The kitchen and laundry were black with smoke and dirt; there was no bath or other washing arrangement for the women, and there was no adequate register of the names, much less the diseases of the inmates. But perhaps the worst thing noted was the latrines. These were triangular holes in the flooring, communicating directly, by means of a shaft inside the wall,

with the numerous rectangular cesspool passages which honeycombed the old palace and its grounds. The smell from these latrines, even when kept externally clean, could be traced for several yards, and in two instances liquid sewage had escaped from a shaft on the first floor, and had permeated the ceiling and wall of the ward below in which lunatics lived both day and night. There were no official visitors to the asylum, strangers were refused admission, and patients' friends could rarely obtain entrance. The attendants were effete and useless men and women drafted from the general native hospital, and the only energetic one I saw was a woman far advanced in pregnancy. The only resident officials were the dispenser and the steward, and even they were occasionally absent in the afternoons. The two doctors lived three miles away in the town, where they had their practice and their families, only spending one hour in the morning at the asylum. The chief doctor, who was assisted by a stout native, was an Italian Jew, who proved on investigation to have no medical diploma, and it was even doubtful whether he had any veterinary certificate, when this became his second line of defence. He had the most unpractical mind, and was quite as useless in the work of reform as his own brother, who was an idiot patient in the asylum. There were diplomatic reasons for not dismissing him until the more fortunate days of my successor. Unable to spend more than my Friday holiday at the asylum, and having at that time no available European assistance, I obtained leave with some difficulty to try and get an English resident physician, with an acquaintance with lunacy, but the pay offered and the prospects were so small that no first-class man could be obtained.

I replaced the stout assistant by a young Egyptian just returned with a Paris diploma, and promised him promotion if he would help in my reforms. He proved a very intelligent aid, helped to organize a tiny *fête* for the patients, and superintended the beginning of the gardens. I grieve to say he has since been dismissed the service for misconduct. He had strict orders to reside on the spot, and as a relief guard we gave him a young house surgeon. To complete the *personnel*, they were supplied with a clerk, a storekeeper, a gardener, a carpenter, a matting-maker, attendants of a younger and more intelligent type, at the rate of one for every ten insane, and a native midwife to superintend the female wards.

I had already had the pleasure of striking the chains off

all prisoners treated in the twenty-three hospitals under the control of the Sanitary Department, and I now removed all chains from the asylum, buying, however, one specimen from the Government to keep as a memento. It is needless to say that we also destroyed the rings and staples of the four dungeons, partially preserving one, which is still shown to visitors. As a substitute, we provided camisoles made in Cairo, after the pattern of some kindly sent to me by Dr. Savage. I may mention here that these were very seldom required, but when used for acute mania answered the purpose admirably. One of my first acts was to invite visits at unexpected hours by any English officer in uniform, and also to enable the friends of patients to visit them upon two days in the week. The lunatics were speedily removed from dark rooms near the ground to better ventilated wards on the first floor, where they had the advantage of breathing the purest desert air, while their former rooms were used for the storage of various supplies which were gradually obtained for the furniture of the asylum. These new wards, after much difficulty, were partly oil-painted by the Ministry of Public Works, and skylights were amply provided in wards and galleries for top ventilation. The patients of both sexes were turned into two large courtyards during two hours in the morning and two hours in the afternoon, and they were encouraged to assist in the kitchen, laundry, garden, and mat-maker's and carpenter's shops. In six months the male airing yard had become a flourishing garden; tables and benches had been made, and matting covered some of the stone floors. Bath-rooms were repaired and a new one constructed for women, dining-rooms set apart, clothing liberally provided, attendants put in uniform white dress, diets improved, and a periodical inspection was made of cases who might possibly be discharged, either cured or harmless imbeciles.

Perhaps the greatest reform in native eyes was the unearthing and blocking-up of all cesspools and underground drains, and so extensive was this work that it occupied a contractor for more than two months. The latrines and shafts in the walls were disinfected and closed, and pails were provided in their stead, as in English barracks; the pails were emptied every day into tightly-closed tubs, and these latter were emptied far away in the desert. One conduit only remained for the drainage of such water from kitchen and baths as was not required for the garden.

It should be remembered that the state of Egyptian finances prevented any liberal outlay for the asylum, and the 300 patients, with all their staff, food, and medicine, had to be treated upon an annual budget which must not exceed £7,800. My own endeavours were rendered more difficult by the opposition of my native colleague and the complete indifference of my Oriental chiefs; but on the other hand I have to thank many English friends for valuable help and sympathy. The interesting work of reformation thus inadequately begun has been ably carried on by my successor, Brigade Surgeon Greene, who, besides loyally recognizing former efforts, has introduced valuable measures of his own. These will be best acknowledged by describing briefly the present condition of the asylum. A three mile drive takes us from the heart of Cairo to the further extremity of the Abbassiyeh suburb, where we find barracks occupied by English and Egyptian troops, the Egyptian Army Hospital, and the only Lunatic Asylum in the country. A local railway line passes the asylum door, and is very useful for transporting patients, their friends, and their supplies. There are massive wooden gates, but these are wide open during the day, and two porters sit within them to see that no too venturesome patient crosses the threshold without leave. While the doctor is being summoned from the wards, we stroll round a pretty garden, bright with pointzettias, roses, geraniums, marguerites, chrysanthemums, and bougainvilleas, and shaded by the acacia, tamarisk, and sunt trees of the original palace garden. This enclosure, bounded on three sides by a two-storied building, is, save for a high wall, open to the garden of the Military Hospital and to the priceless fresh air of the desert; it is 78 × 52 yards, and serves as the male airing ground for two hours during the morning and two hours again in the afternoon. The doctor is a Mussulman who has never been out of Egypt, and has, therefore, never seen any other asylum. He was specially promoted to this post after giving proof of his honesty and painstaking zeal during an epidemic of typhus and relapsing fevers in 1886. He speaks no European tongue and pretends to no knowledge of lunacy, but his presence is a complete safeguard against the ill-usage of any of his flock. He is assisted by another native, who returned a year ago from Paris, where he obtained his M.D. degree, and had the advantage of working with Dr. Charcot at Salpêtrière, and at Ste. Anne with

Professor Ball. These two medical men receive respectively £190 and £110 a year. The rest of the staff is paid as follows :—

1	Dispenser...	£86
1	Midwife	£49
1	Steward	£68
1	Clerk	£62
2	Chief Attendants	£25 each
32	Attendants	£18 ,,

There are, in addition, thirteen servants with various functions. The doctors spend the whole morning invariably in the asylum, but for the rest of the day they are allowed to be represented by the dispenser or the steward, the four thus taking it in turns to be on duty.

Before going upstairs to the wards, we are invited to inspect the offices on the ground floor, where with difficulty we escape the invariable coffee and cigarette. We are shown a spick and span dispensary, a kitchen and a laundry, which might be cleaner, where able-bodied patients are merrily treading on the clothes in the coppers and measuring out pannikins of savoury hash and vegetables for the mid-day meal. Near by a lunatic is chopping wood for the kitchen fire, and others are drying clothes on a roof. The former dungeons are now lighted and ventilated, and are shown us with just pride by the storekeeper, who has utilized them for patients' clothes, neatly pigeon-holed and ticketed, and for various stores of food, drugs, bedding, etc. On the opposite side better rooms are devoted to carpentering and mat-making, while rows of tables and benches and piles of matting are in the corridor. The theory of the asylum is that all capable of work should be thus employed; but the number of men actually engaged is small, and the existing work-rooms would certainly not hold more than thirty or forty workers.

Some few men work well, and not long ago an insane donkey-boy learnt the trade of mat-making in the asylum; and when he was discharged cured, discarded his former life and settled down satisfactorily as a matting-maker in Cairo.

Lastly, on the ground floor are a general out-patient room for the benefit of the neighbouring village, and the bath-rooms, in the Oriental style, four for men and two for women. Upstairs we find a rectangular gallery running round the three sides of the building, and in this patients are walking

aimlessly about, while others prefer to crouch upon their beds in wards opening out of the gallery. Both ward and gallery walls are destitute of ornament, but are painted brown for the lower third and light blue above. A few of the wards have wooden floors, but they are mostly of white limestone, which is covered in winter with matting. Water filters of the country stand in the gallery corners instead of in the latrines, as formerly.

Both wards and galleries are well supplied with windows, lightly barred, and generally ventilation is perfected by open skylights. Such a ward is perfectly fresh, and measures 39 × 27 × 12 feet for sixteen inmates, or 790 cubic feet per head. A few other wards provide for more than 1,000 cubic feet per head, but on the other hand a few wards of a former *régime* still exist, where top ventilation has not been introduced, and ten men, in a measured area of 24 × 18 × 12 feet, cause the room to smell a little closely with an average cubic space of only 518 feet. Each patient is clothed in white cap, shirt, drawers, jacket, and slippers, with a blue overcoat. He has in his ward an iron bedstead, chain mattress, cotton mattress and pillow, two sheets and two or more blankets, pillow case and rug. The patients take their meals in four dining-rooms, seated on benches, at tables covered with American cloth. The diet is similar to that at all other hospitals of the Egyptian Government, and may be ordinary, milk, or fever. But nearly all lunatics are on ordinary diet, and this consists of breakfast, dinner, and supper, each meal being varied four times a week. Let us take as an average sample the diet for Mondays and Thursdays. Breakfast consists of bread, 5½ oz.; lentil soup, 17½ oz.; onions, 2 oz. Dinner includes bread again, 5½ oz.; broiled mutton or beef, 7 oz.; boiled rice, 4½ oz.; and stewed vegetables, 11 oz. Supper comprises bread, 11 oz.; and rice pudding and treacle, 17½ ozs. The composition of the various dishes is carefully thought out, so that the daily average diet for each patient is made up of albumen, 4 oz.; fat, 3½ oz.; starch, 17 oz.; and the cost in Cairo is five and a half pence a day. Bread, vermicelli, and flour are distributed from the stores at Kasr el Aini Hospital, but all other food is provided by a local contractor.

One of the most frequent causes of lunacy in Egypt, as most people know, is the smoking of hasheesh (Cannabis Indica).

Thus at the former of the only two visits I have paid to

the asylum during the past twelve months I found 226 men and 62 women patients. Of the men, 23 were under treatment for recent hasheesh poisoning, besides about 150 chronic demented cases, whose weak-mindedness was the direct result of dissipation with the drug. Early cases arrive very excited, with exalted ideas, but more rarely they are melancholic. They are treated with a preliminary purge, cold baths, and ordinary diet, and the exhibition of bromide of potassium, joined even by chloral and laudanum; and these are usually cured in a month. Small doses of tincture of cannabis have apparently no effect upon their state. But, unfortunately, though the Government does everything it can to prevent this abuse, the devotees return to the drug, and are constantly being readmitted to the asylum; their visits extend over several months, and at last, when no improvement takes place at the end of a year, they join the ranks of chronic dementia. Thus one patient has been an inmate for five years; another, who was a blind beggar, has been there for sixteen years, and is now a confirmed masturbator. He used to sing at the hasheesh coffee-houses in praise of the drug, and will sing now to visitors on a little encouragement, with cracking of the thumbs and many strange grimaces and twistings of his eyebrows and nose. He has a head circumference of only 18½ inches. I saw another patient who had been admitted seven times for treatment.

Makrizy says that hasheesh was introduced into Egypt about 1232 A.D., having spread from Khorasan (Armenia), where it was discovered a few years earlier by a certain fakeer, called Haider. This Haider was a very austere, silent man, who lived for ten years in solitude in a monastery, and the story goes that one day he returned from a country walk gay and chatty, so that his brother monks marvelled. He confessed to having eaten the leaves of the hemp plant; so then his friends ate too, and swore to keep it secret from all but holy fakeers. But in 1378 the drug was so abused by the general public of Cairo that the Emir made a raid upon the Boulak quarter, destroyed all the hasheesh he could find, and punished the consumers by extracting their teeth! At that time even it was known that one or two drachms of the extract were intoxicating, and that an immoderate use of it produced weak-mindedness, chronic insanity, and death.

Early hasheesh cases can to-day be recognized by dilated pupils, increased appetite, with irritability of digestion and

diarrhœa, falling of eyelids, debility and anæmia, and ever increasing timidity. This symptom was well marked in the last case I saw, in which the man was terrified at the idea of leaving his ward, and when absolutely compelled to do so ran at the the top of his speed to execute his errand. In the same ward with him was a bey who in happier days used to produce a condition of ecstasy by drinking a mixture of hasheesh and brandy. I saw, also, a weak-minded old man who had smoked opium for twenty years before admission.

This paper pretends to no exhaustive analysis of the lunatics, for no clinical notes are yet taken at the asylum, and the writer is even more ignorant of psychology than of Arabic.

Religious excitement, though perhaps only a symptom and not the cause of the disorder, is not rare, and the asylum generally contains two or three fanatical Mussulmans who believe that they are specially-ordained prophets. At my visit in March I found one man who had been an inmate for five years, and believed he was a prophet, and though unable to read or write, carried in his head 24 articles for a reformed government, while in the same ward with him was a black soldier who sheepishly confessed that he had until lately been under the impression that he was a great mahdi from the Soudan. Next him was a chronic melancholic (*melanchoie perplexe*) who had been an officer in Arabi Pasha's army. Among the chronic cases one man had been in the asylum seven years, another eight years, one dangerous old man forty-eight years (him I remember as a wearer of chains), one dement five years and another two years, three alcoholics each five years, etc.

The idiots are not an interesting group clinically, chiefly because the Egyptians keep their harmless weak-minded folk at home, and only a few exceptions filter through to the asylum. There is now a boy, æt. 15, who was born in the establishment. When I first knew him, in 1884, he was tied (literally) to the skirts of his mother, who had chronic mania, and could only be soothed by the presence of her boy. He seemed then idiotic, but in order to give him a chance I transferred him to the general hospital, where he played about with a boy half his size, who exerted great influence over him and was called his keeper. He has now been back in the asylum two years, and his mental development seems permanently arrested. He walks, talks, and

asks for what he wants, but is quite incapable of carrying a message. His head measures $20\frac{1}{2}$ inches.

There are also three idiot youths with small heads ($18\frac{1}{2}$ inches), ugly, big ears, irregular old teeth, one of whom, æt. 24, is always drivelling with open mouth, and is quite incapable of learning how to feed himself, yet I have heard him accurately repeat several verses of the Koran. These cases contrast curiously with a hydrocephalic youth with a downy moustache whose head measures thirty inches.

It is not an uncommon thing for male patients to refuse to speak for periods such as eleven months at a time; they then begin to whisper, and are eventually cured. Possibly a strong galvanic battery might curtail their silence.

One inmate at present is absolutely deaf and dumb, and another has complete loss of memory, though he can repeat his name when he is told it. There are six epileptics; when fits occur they are placed on a mattress on the floor. Homicides are not separated from the other patients. I saw one man who had killed his son, and another who murdered his mother because he believed she was a cannibal, and then killed his brother with an axe because he feared that, otherwise, his brother would kill him.

Then there is the case of an anæmic Turkish bey, who used to take me for Marshal McMahon and load all his visitors with absurd petitions; he killed his man, and has been gradually getting more melancholic for the last nine years. He used to be violent at times, and once had to be fed by the mouth for forty days.

Among other patients with delusions, there is a chronic hypochondriac who believes he has a worm in his œsophagus; he was a medical student and contemporary with the present head doctor.

Also, we saw a weak-minded youth with hydrocephalic head, vanishing chin, and cunning stare, who had just undergone a term of imprisonment for aimlessly stealing some wood. He confesses to having practised masturbation four times a day for some years.

A typical case of nostalgia had just died in the asylum. He was originally a slave boy rescued from a caravan by the late General Gordon. He was jet black, and knew only that he came from somewhere south of Khartoum. From being a very active, sharp boy, he became gradually morose, fancied his English master objected to him on account of his smell, took to fighting irritably with his friends, and at last nearly

set the house on fire. In the asylum he relapsed into profound melancholy, asked for nothing but to be sent to his own country, and occasionally got up in the middle of the night to beat his sleeping neighbours with his slipper. He died about a year after the appearance of the first symptoms.

I saw 70 new cases under observation; one of them was a negro eunuch suffering from renal dropsy. Like many of his calling, he was tall (6 feet 5 inches), and looked like a miserable bag of bones. He had no external genitals, and the undeveloped larynx of a child, so that the pomum Adami could be felt, but not seen. Another man had progressive muscular atrophy, with general debility and psoriasis and contracted fingers. Another, to my astonishment, was an alcoholic Irishman, with shaven head and striking brogue, and an evil habit of tearing his clothes. He could give no account of himself, but said he had been discharged from the Egyptian Police, and Dr. Greene had him removed to a hospital under English supervision. He alarmed his attendants by chewing tobacco, a vice which was quite new to them.

I ought to say that all patients suffering from any bodily disease are removed to special wards, and treated with extra care.

Among the excited cases was an acutely maniacal boy, æt. 14, who had been admitted sixteen days before. When I saw him he was bobbing up and down erect upon his bed, with constant snorting movements of nose and face. Cold compresses to the head, cold baths, bromide and chloral quieted him in two days after my visit. None of the excited cases were in camisoles on that day, though I found one very quiet man seated near a window with a camisole thrown over his shoulders; it was not fastened, and he told me he had asked for it to keep him warm. At my second visit in June there were six men (out of 218) in camisoles, all very excited, shouting and singing loudly. No other possibility of restraint exists in the asylum besides camisoles and five padded cells, which Dr. Greene had constructed in 1887, being the first of the kind in Egypt. They are seldom needed, and answer their purpose well, though the cushions are, unfortunately, not moveable; they are stuffed with vegetable horse hair, palmetto from Algiers, which is sold in Cairo at twopence a pound, and covered with railway cushion leather. Healthy-minded Egyptians are very like grown-up children, and when insane they are almost invariably quite

easy to manage. They have but few toys, games, books, or other amusements, but they make pets for themselves of cats, kittens, and the birds which fearlessly fly in and out of the open windows.

One of the most satisfactory things in the asylum is to see the good-humoured chaff and quiet control of the attendants towards their charges; not a trace have I ever seen of anything which looked like unkind treatment. The native calls his afflicted brother *magzoob* (struck by the wrath), or *magnoon* (the victim of *ginua,* or madness), and he believes it a religious duty to succour him at home, instead of packing him off at once to the State Asylum. It is this habit which, of course, accounts for the small number (average 300) of lunatics shown out of a population of about six millions.

Last year's statistics are as follows:—

Patients in Asylum December 31, 1886 ...	233
Admissions during 1887	457
Deaths " "	67
Discharged cured "	310
" uncured "	49
Patients in Asylum December 31, 1887 ...	264

I can obtain no accurate information about the 67 deaths, because autopsies are only exceptionally performed.

The 49 patients discharged uncured were harmless, weak-minded paupers, who were transferred to the Asylum for Incurables.

Before 1886 patients were admitted without regular certificates, being sent by the Mudir or police, but now a series of letters have to be written about each lunatic. The police or the patient's friends first communicate with the head Government doctor of the province, who examine the patient and sends him, if apparently insane, to be separately examined by two doctors, who on their certificates give detailed symptoms of the insanity.

Cases when cured are discharged from the asylum by the chief doctor.

I have not yet referred in detail to the female patients, whose number varies from 60 to 80. They are in a separate wing of the building and have a garden to themselves. They include Copts, Syrians, Fellaheen, Soudanese, Jews, Turks, Circassians, Abyssinians, and mostly have their hair cropped short like boys. They have not yet been made to settle down to any practical work, but arrangements are now

being made for employing about forty of them in making clothes.

Most of them are in one dormitory recently converted from a stable into a splendid ward. It contains 61 beds, and measures 162 × 33 × 18 feet, or 1,577 cubic feet for each. Fortunately they are seldom excited, and are inclined to silence, so that the assemblage of such a large number of women is less inconvenient than might be imagined. Neighbouring rooms are used for special cases, baths, dining, and attendants.

Among frequent causes of women's insanity are alcohol, hasheesh, chagrin at loss of child, bad husband, etc. The greater number of cases that I saw were weak-minded middle-aged women waiting to go to the Asylum for Incurables.

Among the cases that caught my attention were an Italian who is always praying, two cases of chronic melancholia of four years each, an epileptic idiot, another idiot, æt. 28, with a dreadful squint, a blind woman with chronic dementia, a case of senile dementia with hemiplegia, a girl with erotomania, and an hysterical woman at her climacteric with an history of hereditary insanity.

A new patient with disordered hair was very merry, and told us she had been taught by her husband to become dependent on hasheesh and arrack. A quiet looking black girl was busy fanning the baby of one of the attendants, who seemed quite happy about her offspring.

There was a sad case of a Mussulman girl who had been seduced at the age of 17 by her Greek employer. She became pregnant and insane, and was confined in the asylum. She is now 19, and seldom speaks except to repeat the name of her seducer. At the other end of the ward is another Mohammedan girl who says she was seduced by a Copt two years ago when she was 18. But I am warned not to believe her implicitly, for she is now very excited, and this is her second admission to the asylum. So far as we know such cases of seduction are very rare in Egypt.

We were accompanied round the ward by one of the Government midwives, who is now cured, but had, until lately, delusions about being dishonoured by her own male relatives.

We saw a case of mental debility in a woman who was pointed out as a *rara avis*, for she had never been married. She thinks she is possessed by a holy saint called Mohammed, and adorns herself with earrings and bracelets made of twisted

ends of string. Next to her was a chronic maniac, resident two years, who had had a child in the asylum. Children born in the asylum of incurable mothers, instead of being kept there as formerly, are now sent to the foundling department of the General Hospital, where they are farmed out by the Government under proper supervision, and eventually handed over to some deserving parents who have lost their own children.

I propose to conclude this paper with a reference to general paralysis, which seems to be unknown among the cereal-eating natives who fill the asylum, in spite of their great tendency to syphilis and to sexual excess. The disease is, however, occasionally met with among Orientals of better circumstances, who eat meat freely, use their brains more than their hands, and are not strict teetotalers.

Dr. Schiers, during 19 years in Alexandria, tells me he has seen five cases of the disease occurring in a Turkish pasha, a Syrian Christian, an Austrian, and two Levantines. All five were meat-eaters, in good circumstances, and two of them had had syphilis.

Among the Cairo lunatics I have found several with trembling of the lips and tongue, but no other symptoms, while others suffering from grandeur of ideas have proved to be hasheesh cases on the road to recovery. There is a negro now in the asylum who was shown to me as a case of general paralysis, but whom I believe to be suffering from disseminated sclerosis. He is aged 30, and was employed by a timber merchant in Cairo. His previous history is unfortunately unknown, but he has now been in the asylum for four-and-a-half months, and suffers from general tremors of lips, tongue, legs, and arms, exaggerated on any movement. He can raise but cannot protrude his tongue. His pupils are normal, and he has control over rectum and bladder. When given a cup of water to drink his tremors become painful in the extreme, and nearly every drop of the water is dashed over his head and chest. He can walk with the help of an attendant, with jerky shakings of the legs, arms, trunk, head, and neck. The knee jerk is exaggerated, and the legs are partly rigid. His speech is thick and blurred and difficult to understand. He has loss of memory and general weak-mindedness, and no exaltation so far as I could learn.

There is, however, another man in the asylum who may possibly belong to an early stage of general paralysis.

Unlike his neighbours, who are nearly always silent, this man is very talkative and excitable, and is almost the only man in the building who obtrudes himself with a beaming face to shake hands with the visitors. He was once rich and a hard-working merchant, till he took to gambling and lost all. He thinks he is a great poet and *savant*, and believes he could be of great use to the world if he were removed to another sphere.

He has trembling of the hands, but not of the tongue or lips. His pupils are equal and normal. He has diminished patellar reflex and walks stiffly with a stick from sciatica.

The following case is worthy of being reported :—

A Turkish pasha, nearly three years before his death, alarmed his family by showing unaccustomed irritability and grandiose ideas, such as believing that he was Sultan or Grand Vizier. They found it best to humour him, and when one day he returned home saying that he had been nominated to a high position in Europe they never dreamed that he was telling the truth until the following day when the firman arrived. They then took steps to inform the Ministers of his apparently insane condition ; but as the pasha had full powers of conversing well on intricate political subjects they were laughed to scorn. The patient then took up his new post, and shortly electrified his august master by telegraphic prophesies as to the fate of several crowned heads in Europe. Believing that his banking account was unlimited, he made many absurdly lavish purchases, delighted to make presents to ladies unknown to him, used to go to the theatre with 100 fans for distribution, and eventually scandalized his friends by appearing at an official reception in straw hat and flannels. His Government recalled him, but he replied that he was quite happy, full of work, and with no intention of leaving. It was only by a fictitious telegram hinting at considerable promotion at home that he could be induced to leave.

More and more weak-mindedness was developed, with attacks of aphasia recurring at intervals, loss of memory for recent matters, and failure in French conversation, though he had talked the language.

An early symptom in this case was the patient's own belief that he was going mad. Before being transferred to Europe he desired one day to resign the appointment which he held under the Government, and wrote, as he thought, his official

resignation; but the paper was found scrawled all over with "Je suis fou." During the last year of his life the patient, who had always been a great card player, spent nearly all his time in dealing real or imaginary cards. Once he lay upon the floor for fourteen hours at a stretch playing with imaginary cards. Convulsions became more and more frequent, mental deterioration and paralysis increased, and after three months' confinement to bed death ensued, the patient persisting to the last that he was Sultan of Turkey. This case was preceded by much sexual excess, but not by syphilis.

On Post-Epileptic States: A Contribution to the Comparative Study of Insanities. By J. Hughlings Jackson, M.D., F.R.C.P., LL.D., F.R.S., Physician to the London Hospital and to the National Hospital for the Epileptic and Paralyzed.

(*Continued from p.* 365.)

Section VIII. Need of Wide Clinical Knowledge.—If anyone thinks that the study of Diseases of the Nervous System as they are Dissolutions will take his attention from their clinical or practical consideration he is mistaken. I urge two methods of study, one scientific and one clinical. Without a considerable clinical knowledge of cases no one is fitted to begin the scientific, comparative, study of nervous diseases. For the scientific study of insanities a very wide clinical knowledge is necessary. It would never do to confine attention to cases described in text-books by Alienist Physicians, to what I may call "orthodox" cases of insanity. Not being an Alienist Physician I say this, and what follows in the present Section, under correction by the Members of this Society, who of necessity know very much more of "Diseases of the Mind" than I do. I should not presume to address Alienist Physicians on their special subject had I not the hope that from a long study of simpler diseases of the Nervous System, I might contribute something of at least indirect value for the elucidation of the most complex problems they have to deal with. In a later section I shall urge a study of cases of abnormal mental affections, many of which are not, in a clinical regard, cases of insanity at all, and, so far as I know, are not dwelt upon in books on Insanity.

Further, we must, in such an inquiry as this, study diseases of the Nervous System which are in no reasonable sense cases of Insanity regarded from any standpoint. It is a legitimate hypothesis that the same fundamental principles apply to all nervous diseases whatsoever, from such as paralysis of an external rectus up to insanity. I have illustrated this, Section IV. The Alienist Physician, above all other physicians, should have a large general knowledge of the simpler nervous diseases before he tries to explain the most difficult of all diseases whatsoever. On the principle of studying simple things as a basis for the elucidation of the more complex we should deal with foot-clonus after an epileptic fit as well as with elaborate and universal movements, as in epileptic mania, after one; both symptoms exemplify the same principle, "loss of control." Before anyone studies epileptic paroxysms, surely he ought to study epileptiform paroxysms, which are vastly simpler. If we do not know well what is found after these comparatively simple seizures we ought to be diffident in concluding as to the nature of post-epileptic states. Finding unmistakable paralysis after the simple fits, we are justified in stating the hypothesis that there is paralysis after epileptic fits; we can then seek evidence of very different kinds towards proving and disproving the existence of that paralysis. Towards this end we should study cases of aphasia; especially should we study temporary aphasia after certain epileptiform seizures; all the more because this aphasia is often associated with paralysis of the face or arm, or both. That the physical condition correlative with loss of words is loss of nervous arrangements, representing complex, etc., movements of the tongue, palate, lips, etc., is, I think, as certain as that the paralysis of the arm and leg that so often goes with the aphasia is loss of movements of those limbs.

In the preceding remarks is the excuse, if any be needed, for going so much further afield than is the custom when dealing with one subject. But the "one" subject, post-epileptic states, refuses methodical consideration apart from other nervous diseases. Every nervous disease, being a flaw in one great evolutionary system, demands consideration as wide as we can make it with precision.

That certain general principles, implicitly stated in the formula of evolution, apply to all diseases of the Nervous System is an hypothesis verified only in some cases. It is

quite certain that both hemiplegia and aphasia display reduction from the complex, special, etc., towards the simple, general, etc.; and that the principle exemplified in these two cases applies to some simple cases of Insanity is equally certain. It is quite fair to apply the hypothesis in all cases of nervous disease; this remark will sound strangely, of course, to those who erroneously suppose that an hypothesis, a supposition, is a conclusion, which it is not.

Since, according to the doctrine of Evolution, the highest centres (Section V.) represent all parts of the body, a case of Insanity being a disease of these centres, is physically the evolutionary sum of something out of disease of every part of the body; speaking very crudely, it is the representative of diseases of all parts of the body. Hence we should study the simple diseases of the spinal cord, medulla oblongata, and pons Varolii (which are, so to say, "detailed nervous diseases," being of small regions of the body), as a preparation for the study of insanities, exceedingly complex diseases of the highest centres (which are diseases of centres representing all parts of the body in wholes). Moreover, just as in the study of Insanity, we do not limit attention to cases described in text-books on that disease, so we should not limit attention to cases of disease of the cord, medulla, and pons described in ordinary neurological text-books.

Section IX. Limitation of the Inquiry into Mental Disorders of Epileptics.—It is frequently said that temporary elaborate abnormal actions sometimes occur periodically in epileptics, whilst they are "unconscious," unpreceded by an epileptic fit of even a slight degree. Dr. Clouston, in his very valuable work, "Mental Diseases," says that mental symptoms essentially periodic and paroxysmal most often occur after the fits. But he mentions five other ways in which "Epileptic Insanity" occurs in relation with them. Dr. Savage, in a most important article, entitled "Some of the Relationships between Epilepsy and Insanity," *Brain*, January, 1887, when speaking of what is called masked Epilepsy, expresses the opinion that in most of these cases a fit of some sort, great or small, does occur before the strange acts. Again, to give a quotation from that article, "I have met with but few cases of true masked epilepsy, and in none have I been convinced that no fit had occurred." In his work, "Insanity and Allied Neuroses," p. 384, Dr. Savage writes, "It is common to meet with cases in which,

immediately before or after the fit, an outburst of uncontrollable fury of the most destructive kind takes place." But he speaks, too, of such outbursts as most commonly occurring after the fits, and on sudden return to consciousness.

I believe I may assume that the majority of Alienist Physicians admit that *suddenly* occurring *temporary* abnormal elaborate actions during unconsciousness in Epileptics (and it is with such cases only that I deal) are in most instances preceded by a fit, although not, as my hypothesis is, in all instances. I do not undertake to show the converse—that there are actions after every epileptic fit. In the process of slow re-evolution, during return to complete consciousness after slight fits, there are really often actions which are little heeded as post-epileptic states; the patient may take out his watch, look at his papers, ask what day it is, what o'clock it is, etc. (re-orientation).

I may here express my surprise that I have not succeeded in making evident that my belief is that elaborate actions during unconsciousness in Epileptics occur *after* paroxysms. The title of an Article I published, "Medical Times and Gazette," July 19th, 1873, is "Remarks on the Double Condition of Loss of Consciousness and Mental Automatism *following* certain Epileptic Seizures." I now give a quotation from that article, ". . . Dr. Hughlings Jackson does not believe, as he used to do (see this Journal ['Medical Times and Gazette'] December 14th, 1867, p. 642), that the Mental Automatism of Epileptics—epileptic mania, for example—is the result of the discharge [epileptic] of any part of the brain, that is to say, *not the direct result.* The duplex condition is found, he considers, when the discharge is *over.* The mental Automatism is one of the indirect results of the [epileptic] discharge. It is true that in some cases of sudden mania [in Epileptics] a prior seizure is not witnessed. Hence, some say that mania occasionally 'replaces' a fit. (This is the very opposite of the view now being stated.)" (Italics in original. The words in square brackets alone are new.) The title of another paper ("On Temporary Mental Disorders *after* Epileptic Paroxysms," West Riding Asylum Reports, Vol. v., 1875), shows that I have continued to hold the doctrine that suddenly occurring elaborate abnormal states in epileptics occur *after* their fits. I argued to the same effect (Croonian Lectures, "British Medical Journal," April 5th, 1884).

Section X. Degrees of Post-Epileptic States.—There are

three degrees. (1) What may roughly be called "Confusion of thought;" there is here a mental condition of two opposite elements, (*a*) slight defect of consciousness, and (*b*) persistence of the rest of consciousness.* (2) (*a*) So-called "loss" of consciousness with (*b*) actions. (3) (*a*) coma with (*b*) persistence, seemingly, of "vital" operations only.

That the three degrees do occur after epileptic fits of different severities is certain; therefore, each of them ought to be considered in this inquiry. Yet I think the custom is to deal only with the second degree, as if the first and third required no explanation as post-epileptic states. But surely coma after an epileptic fit ought to be considered in the same inquiry as that in which unconsciousness with mania after such a fit is considered. Is it not unmethodical to cut off the first and third degrees and to deal only with the second degree of one series of states found after epileptic paroxysms?

Section XI. Three depths of Dissolution: Shallows of Evolution Corresponding.—It is convenient here, although somewhat out of order, to remark in mere outline on the physical conditions of the Three Degrees as they are three different depths of Dissolution of the Highest Centres with correspondingly three different shallows of Evolution remaining.† I shall, for convenience sake, speak of the Highest Centres as if they were made up of "layers," which of course they are not: I say particularly that I am not thinking of layers of cells of the cerebral cortex; I am speaking quite artificially, and, so to say, diagrammatically. I shall assume that there are four layers.‡

(1) In the first degree there is loss of function (effected by the prior epileptic discharge) of the first, highest layer (first depth of Dissolution). To this answers the negative affec-

* In former papers (see this Journal, April, 1887, Section XVIII.), I have spoken of what is known as the Intellectual Aura (I call it "dreamy state") as being the positive element in some cases of the first degree of post-epileptic states. In this paper a more inclusive expression is used. I now feel uncertain as to the exact symptomatological nature of the "dreamy state."

† I never use the expressions Evolution and Dissolution of the Mind. It would be convenient perhaps to use them sometimes if one could be sure that they would be taken to imply mere parallelism with Evolution and Dissolution of the highest cerebral centres of the Nervous System.

‡ I speak at present of Dissolution after epileptic fits as being uniform, as if, that is, all the divisions of the highest centres were evenly lowered in function. Yet, I believe that the Dissolution in these cases preponderates in one lateral half of the brain; that there is local Dissolution of the highest centres. I shall rectify the statement made in the text later on.

tion of consciousness. The lower level of evolution (we should say sub-level) is the second layer during activities of which the consciousness remaining arises.

(2) In the second degree, the first and second layers are functionless (second depth of Dissolution). To this answers the "loss" of consciousness. The level of Evolution, being the third layer, is shallower, and during its activities (or, as some would say from them) the actions * arise.

(3) In the third degree the Dissolution is still deeper. It is of the first, second, and third layers, and, correspondingly, there is still greater negative affection of consciousness, coma. The lower level of Evolution is the fourth layer, and possibly no consciousness attends its activities. Of course, it may be held that in this degree all four layers of the highest centres are quite out of function, a view I do not take.

In all cases, whether in health or in Disease, the activities of the Highest layer are determined from below. The Lower Level of Evolution in the second degree, although we spoke of it as being the third layer, is the whole of the Nervous System except the highest two layers of the highest centres. If there be any psychical states in this degree they attend activities of the third layer, which is the highest there is then.

It is not held that in any of the three degrees the Dissolution is confined to the Highest Centres, although the illustration by the artifice of layers literally taken declares that it is. But the illustrations are purely artificial. And even supposing that the highest centres were in layers the Dissolution would not really be abruptly limited to this or those layers, as I have, for convenience, stated it to be. Unquestionably, plainly after severe fits, the lowest of all centres undergo some Dissolution. Loss of the knee-jerks after some epileptic fits (Westphal, Gowers, Beevor) shows that some spinal centres have lost function. The Dissolution in deep post-epileptic coma is highly compound; it may be rudely symbolized (using the initial letters of highest, middle, and lowest centres with indices, but with no pretence of exact quantification) as $h^3 + m^2 + 1$. This is only a way of saying over again that there is (Section V.) loss of some of three

* I use the term action in a psychical sense; actions are psychical states corresponding to certain movements of the limbs, etc., in the same way as the psychical states words (also actions) correspond to certain complex, etc., movements of the tongue, palate, lips, etc.

orders of movements, most complex, less complex, and most simple. We are at present neglecting the important fact that post-epileptic Dissolution is in this way Compound.*

Section XII. The Comparative Study of Insanities.—The Comparative Study of Insanities is by regarding all "Mental Diseases," of which post-epileptic states are some, as Dissolutions beginning in the highest (cerebral) centres of a great sensori-motor mechanism. Such a study is of three kinds.

(1) We may consider different kinds of insanity in comparison and contrast with one another; that is, as they are physically owing to Dissolutions beginning, or preponderating, in different divisions of the highest centres (Local Dissolutions of these centres). For example, we might compare and contrast cases of melancholia with cases of general paralysis; hypothetically in the former there is Dissolution beginning in the posterior, in the latter beginning in the anterior lobes of the cerebrum.

(2) We may compare and contrast different degrees of the same kind of insanity; that is, as each is a different depth of Dissolution of the same division of the highest centres, the three degrees of the post-epileptic condition, for example.

(3) We may consider insanities (as they are diseases of the highest centres) in comparison and contrast with diseases of lower centres, with aphasia and hemiplegia, for example.

The comparisons and contrasts we mean are (1) of the *physical* conditions of different insanities with one another; (2) of degrees of the *physical* conditions in the same kind of insanity, and (3) of the *physical* conditions in insanities with

* There is nothing more important regarding Evolution and Dissolution than that they are processes, respectively, of increase and decrease in Compound Order. I have long been possessed by this notion. I gave an example of it (*Med. Times and Gaz.*, Dec. 19, 1868) when stating details of the sequence of spasm in a case of epileptiform fits. It may be that in the sensory sphere Compound Order is analogous to Weber's Law. But speaking of the sensory sphere I would put it as follows, without any attempt at exact quantification: A certain degree of stimulus at the sensory periphery produces no effect (I mean that no sensation ultimately arises), as the stimulus does not overcome the resistance of elements of any lowest sensory centre. A stimulus somewhat stronger produces a very great effect; for being, the supposition is, just sufficiently stronger to overcome the resistance of elements of some lowest sensory centre, there is liberation of a large quantity of energy by those elements, and ultimately a great effect is produced on the highest sensory centres. An increase of the strength of a nervous discharge produces a compound effect. This applies to normal and abnormal discharges of sensory and of motor elements. The principle is exceedingly important with regard to differences in the physical processes during faint and vivid states of object consciousness, ideation and perception for example.

those which are lesions of lower centres. I do not mean, of course, that we may not profitably compare and contrast mental symptoms of one kind of insanity with those of another kind; for example, the mental symptoms of melancholia with those of general paralysis. With such comparisons and contrasts I do not here occupy myself. I deal with mental symptoms as signs only of what is not going on or of what is going on wrongly in the Nervous System.

Section XIII. On the Significance of Positive Mental Symptoms.—We must be careful not to compare and contrast the wrong things, as we may easily err in doing if we confound the Physical with the Psychical. Further, we shall get wrong if we think of "mental symptoms" without analyzing them into negative and positive (often super-positive). Whilst it is absurd to compare and contrast negative mental symptoms with negative physical symptoms, it is, if possible, more absurd still to compare and contrast a *mélange* of negative and positive mental symptoms with any physical symptoms. Dissolution alone is owing to disease in the sense of pathological process. It is a negative functional state caused by a pathological process; the negative symptoms of a patient's insanity alone answer to it. Positive Mental symptoms in all cases of insanity answer to activities of healthy nervous arrangements on the level of evolution remaining. These two statements on the symptomatology of insanities are so important in the comparative study of these diseases that I will illustrate them at length, although in doing so I shall have to repeat particularly still more of what was said generally in Section IV.

Repeating statements of the preceding paragraph otherwise, the assertion is that the physical condition for positive mental symptoms* is never caused by *pathological* processes; on the contrary, these symptoms occur during activities of parts which are healthy and which are normal too, except often for *physiological* over-activity; they attend activities of all which is left intact in a nervous system maimed by Dissolution, activities of that which Dissolution has spared. We ought to avoid such expressions as that disease "causes Mental symptoms," or that it "disorders the functions of the brain." These expressions hide the fact that we have to deal with a symptomatology made up of two diametrical opposites.

What to medical men are positive mental *symptoms* are,

* I exclude "crude sensations" such as occur at the onset of epileptic fits.

or are parts of, Mentation which is perfectly normal in the patient, as certainly normal in him as the mentation of the sane is normal in them. The mentation of the sane attends activities of the proper Highest layer of Evolution, the mentation of the insane of *their* highest layer. Thus in the first degree of post-epileptic states the patient's *then* highest layer is the second layer of his normal highest centres, and his mentation is correlative with activities of that layer. What we call the insane man's extravagant conduct displays his Will; what we call his illusions are his Perceptions (Memory); what we call his delusions are his beliefs (his Reasoning); and what we call his caprice is evidence of his Emotional change.

The insane man is a different person from his sane self, and we should take him up for investigation as that new person. For although we speak, as is the custom, of defect of consciousness as if it were a something, it is a nothing; it is so much consciousness eliminated, got rid of. The correlative functionlessness of nervous arrangements, Dissolution, is a physical nothing; it is so much of the highest centres eliminated, temporarily or permanently, as the case may be. The insane man, the new person, has, in this way, a lower consciousness and a shallower nervous system than the former person, his sane self. But this shallowed nervous system, with the parts of the body it represents, is all there then is of him physically, and thus no wonder that correlatively *he* (all the "he" there is) believes in what *we* call his delusions. Indeed, if, as I assert, the delusions are the patient's beliefs, it is tautological to say he "believes in his delusions," that being equivalent to saying "he believes in his beliefs."

As just said, the insane man is a different person from his former sane self. In a case of post-epileptic unconsciousness with mania, the second person, as we shall call him, differs from the first, the normal, person by a minus and by a plus. Physically there is less of him by lack of the highest two layers of his highest centres, and there is too much of what is left of him in the sense that there is greatly increased activity of the layer reduced down to.

By taking a simpler case, I can show how we are misled if we do not distinguish the two persons when we use the same pronoun for each of them. I take the normal Dissolution of sleep, the first depth of

it. No one denies that the "positive mental symptoms" in this case of "normal insanity" are correlative with activities of perfectly healthy nervous arrangements.* "I am awake now, but in my sleep *I* was dreaming. I wonder that in my dream *I* could have believed that the Emperor of China was a steam engine." The I's and the *I*'s, the same for the grammarian, symbolize two different persons for the student of mental diseases. *I*, we may call him B, is I, we may call him A, *minus* the use of the higher nervous arrangements of the highest centres (Dissolution), and *plus* increased activity of the next lower, Evolution remaining. The dreamer does not wonder because his mentation is correlative with all there then is of him. For A to wonder that B did not wonder implies a confused notion that he (A) was present with, and was being tricked by the temporarily existing B. But when B existed there was no such person as A. It is rather the other way. B is present with A on re-evolution; or, to speak more carefully, B's dream, his mentation, remains quasi-parasitical in A for a short time, as much as and so long as A remembers it, or, more simply, *has it* after awaking, after ceasing to be B.

Whilst popularly it is permissible to say that the sane man "lives in the real world," and that the insane man, say the dreamer, "lives in a world of his own," the statements are, when regarded scientifically, very misleading. Everybody, sane or insane, "lives in a world of his own;" everybody's real world, what seems real to him, is made up of "projections" of his own images. The only thing outside which we can suppose to be "common at all" is that which makes each have images peculiar to himself. I will now illustrate this.

A cabman is standing dressed by his bed in one of my wards. On my coming up to him he asks me to get into his cab, and to tell him where he shall drive me. I ask, "Where is your cab?" With a sneer and a manner which amounts to saying, "What a fool you must be," he exclaims, pointing to his bed, "Why, there!" This patient saw a cab, and that image strongly "projected," his objective state, at a time when I saw a bed, when I had that image strongly projected, my objective state. It is of no

* The images in dreams and in insanity are as certainly objective as the images of the sane man's ordinary, waking, perception are.

avail for trustworthy witnesses to assert that the patient *could not have seen* a cab, because there was no cab present, and, therefore, that the patient " only fancied," etc., that he saw one. Something, not himself, "got out of" himself the image cab, "out of" the bystanders the image bed.* It might be said that this doctrine confuses reality and unreality. But what reality and whose reality? The image cab was the patient's reality; the image bed was the healthy bystanders' reality.

(*To be continued.*)

Description of the New Hospital at the Montrose Royal Lunatic Asylum. By James C. Howden, M.D. (*With Plate.*)

It being necessary to extend the accommodation of the Montrose Royal Lunatic Asylum, it was deemed advisable to erect a hospital entirely detached from the main building, in which all the bodily sick and other inmates who required special medical care would be brought together, and placed in circumstances more favourable to treatment than they could be in a ward of the asylum proper.

This project recommended itself the more that the sick room accommodation has always been a weak point in the institution, a portion of an ordinary ward only having been set aside for the purpose.

A classification of the present population showed that between one in five or six might with advantage be treated in the proposed hospital.

Fifty beds for each sex was therefore fixed on as the extent of the accommodation required, and the principle adopted in the plan is to provide purely hospital conditions suited to the insane in a building which, though worked in connection with the main establishment, would be independent of it as regards its appliances and nursing staff.

The site of the new building is at the north-west corner of the grounds. It is sheltered from the north and east,

* I do not say " image *of* a cab " and " image *of* a bed." I am not endorsing a crude popular psychological hypothesis that " real " outer objects, in themselves coloured, shaped, etc., photograph their colour, shape, etc., on us. What I call the image is a state of the mind (each person's), a " ghost," standing as a symbol of something not us, of the nature of which something we know nothing.

DETACHED HOSPITAL
MONTROSE ROYAL ASYLUM.

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REFERENCES.

A W. C.
B Lavatory
C Dormitory
D Attendants' Room
E Single Rooms
F Ward Kitchen
G Dayroom Dormitory
H Attendants' W. C.
I Slops
J Dirty Linen
K Pails
L Coal Bunker
M Cloak Room
N Linen Store
O Corridors
P Verandah
Q Baths
R Dressing Room
S Closet
T Day Room
U Matron's Room
V Surgery
W Physician Superintendent's Room
X Waiting Room
Y Vestibule
Z Pantry for Officials
a Stores
b Passage
c Scullery
d Dish place
e Dinner Service place
f Service Corridors
g Dining Hall

Plan of Ground Floor

0 10 20 30 40 50 60 70 80 90 100 feet

and the ground slopes to the south, commanding a fine view of the sea and of the intervening country.

The building consists of a central block, from which wide corridors extend on each side, connected at their east and west extremities with pavilions running north and south. The north portion of the central block is a three-storied building and contains a visitors' room and apartments for the officers and servants. In front of this to the south are the kitchen, stores, and other offices. A service room separates the kitchen from the dining hall. The dining hall, which is in the centre of the hospital proper, is large enough to allow two-thirds of the patients to take their meals in it. From the dining hall a wide corridor, 115 feet long, stretches on each side. From the north wall of this corridor are communications with bath rooms, lavatories, linen stores, clothes stores, and other conveniences, and also a stair to the first floor dormitory. The greater part of the corridor is 14½ feet wide, and it is separated in front from a verandah by glass partitions, admitting air and light freely from the south. This spacious corridor will admit of exercise being taken by patients who are unable to take it in the open air, either in consequence of the state of the weather or from any other cause. Very feeble patients can be taken into the verandah, in suitable weather, on sofas provided with wheels. From the central end of the corridor a day room, with a bay window at the south extremity, projects to the front. The pavilion extending to the south from the outer end of the corridors contains a large day room dormitory; that to the north a range of single rooms and a small separation ward.

The day room dormitory on each side, which perhaps may be regarded as the most important section, is in a measure independent of the other parts of the hospital. Its south end, which terminates in a large bay window, will be used as a sitting room by those who are able to be out of bed. Five single rooms open off this ward besides an attendant's room, a small kitchen, store closets, a lavatory, bath room, and other conveniences.

The north extremity of the north pavilion on each side is so arranged that it can be cut off from the rest of the building and used as a separation ward for the treatment of patients whom it may be thought desirable to isolate.

The following table shows the accommodation on each side of the house and of the dining hall:—

	No. of patients.	Sup. area per patient.	Cubic space per patient.
Day room Dormitory	14	105	1548
Central Dormitory	5	79	1145
Separation Dormitory	3	80	880
Dormitory on first floor...	14	68	921
Single rooms	16	94	1034
Day room...	30	32	422
Dining Hall	64	15	277

The long wide exercise corridors in connection with the day rooms and day room dormitories on each side afford additional space to the extent of 1,402 sup. ft., and 16,683 cubic space.

With the exception of an associated dormitory for fourteen beds, on each side, the same size as the day room below, the whole of the accommodation for patients is on the ground floor.

The whole hospital is lined with brick, a space of 4½ inches being left between the outer wall and the brick lining. No projecting cornices are used, and the angles of all the rooms are rounded. With the exception of the wide corridors, which are panelled with wood, all the walls are plastered with Keene's cement, and are therefore non-porous as well as washable. The floors are of pitch-pine polished, excepting those of the lavatories, w.c.'s, bath-rooms, and kitchen offices, which are of granolithic cement or tiles.

The day rooms, corridors, associated dormitories, and fourteen of the single rooms, have open fire-places. These fire-places are so constructed as to deliver fresh warm air into the rooms. Besides the fire-places, the building is heated by steam at a low pressure. The steam is passed through pipes in coils, and in connection with each coil is a fresh-air opening. Tobin tubes built into the wall are also freely used.

The exit ventilation is so arranged that each apartment has a separate flue for itself from the ceiling. These flues are collected together into large louvred turrets in the roof,

of which there are eleven in the whole building. In these turrets a strong upward current is created by means of steam coils.

The steam pipes are so arranged that a small system for supplying hot water for baths, etc., and for heating the roof ventilators, is worked in summer.

No steam is blown off. It is all returned to the boilers as warm water.

The cost of the new building, exclusive of painting and furnishing, will be about £13,000.

No pains have been spared by Mr. Sydney Mitchell, the architect, to make all the arrangements as complete as possible.

Boarding-out of Pauper Lunatics in Scotland.

By D. Hack Tuke, F.R.C.P.

(*Read at the Quarterly Meeting of the Medico-Psychological Association, held at Bethlem Hospital, Nov.* 16, 1888.)

Those who were present at the Glasgow meeting of the British Medical Association will remember that our Scotch members, especially Dr. Turnbull, endeavoured to get up an excursion to Kennoway. It was hoped that at least twenty would avail themselves of the opportunity, but the hope was not fulfilled; then ten, but this also failed; lastly five, but I am sorry to say there were not even five righteous men found in the Psychology Section of the British Medical Association. The excursion was therefore abandoned.

Subsequently, after visiting Dr. Urquhart's asylum at Perth and seeing his excellent additions to the old building, I proceeded to the district myself, and there was, perhaps, this advantage in going when I did, that no inspection was expected. I availed myself of the kind services of Dr. Macdonald, of Markinch.

It must be borne in mind that in every county of Scotland the same system prevails on a smaller scale (see Table at end of this article), some patients residing with strangers and others with relatives; some, again, being single patients, and others, being from two to four in number, in what are called specially licensed houses. Restricting ourselves entirely to pauper lunatics, we find that on the 1st January, 1888, there were 2,270 resident in private dwellings in Scotland. In Fife there were 281, of whom 241 were detained in "specially

licensed houses" and 40 were "single patients." In Kennoway there were 65, in Star 40, and in Thornton 29, and in the village of Auchtermuchty 14, all these (148) being in specially licensed houses. Taking the whole of Scotland, 66 per cent. of boarded-out pauper lunatics were single patients, and 34 per cent. were in the "specially licensed houses." It was in September, 1888 that I visited Kennoway, Star, and two or three very small villages in the neighbourhood, accompanied by Dr. Macdonald, who has been for ten years the quarterly medical visitor to the patients in this district. He is paid half-a-crown per patient for each visit. The parochial inspector visits the houses also at least once a year.

The caretakers are mostly small crofters living in humble cottages, thatched, and consisting of ground floor and one story. The payments made to these guardians are usually six shillings per week for women and seven shillings for men patients. As the men work on the ground when able to do so and the women render a certain amount of help indoors, an additional recompense, however small, may be counted upon by the caretaker from this source. The clothing of the patients is provided for by the parish. In order to appreciate the relative cost of the boarding-out and the asylum system I give a comparative statement of the weekly and annual cost in the Woodilee Asylum, near Glasgow, and the expenditure of pauper lunatics in private dwellings in a neighbouring district (Balfron).* In the former the board and lodging amounted to a fraction more than 10s. 11d., and the supervision, etc., to about 2s. The whole expense, including clothing, amounted to 13s. 7d. per week, or £35 7s. 9d. per annum. On the other hand, in the private dwellings the cost of board and lodging was 7s., and that of supervision, etc., 9d., while the expense of clothing amounted to 1s., making a total of 8s. 9d. per week, or £22 15s. per annum. This, it will be seen, is a sum less by 4s. 10d. a week, and £12 12s. 9d. a year. It is unnecessary to say that if this saving can be effected without detriment to the patient and injury to the cotter's family, it is not only justifiable but a duty to the ratepayers to adopt the boarding-out system.

* Report of Scotch Commissioners, 1888, p. 110. It should be added that in Scotland the grant of 4s. per week applies to boarded-out patients. Dr. Turnbull, on the authority of Dr. Lawson, gives the average weekly cost of boarded-out patients in the whole of Scotland in 1886-7 at 5s. 10d. In 12 District Asylums in Scotland it was 9s. 4d., without reckoning for rent, for which, if the moderate allowance of £10 a year be added, this cost would be brought up to 13s. 1½d. a week. ("Journal of Mental Science," Oct., 1888).

It should be added that Dr. Clouston thinks the difference in favour of boarded-out cases is still greater.

In England the cost per patient at county and borough asylums is 8s. 9¾d. per week. This includes food, salaries, clothing, necessaries, etc., and is charged to the parishes. The county treasurer pays all costs of "ordinary" repairs, additions, alterations and improvements; also new works, also interest on capital borrowed, if any. Dr. Mitchell, the late superintendent of the Wadsley Asylum, calculated that every pauper lunatic in an asylum costs the community 15s. a week, or £39 a year. It is safe to reckon for *ordinary* repairs, &c., about one-sixth of the maintenance account, and £10 to £12 for new works and capital charges.

All the patients I saw were quiet, and for the most part weak-minded, either congenitally or from secondary dementia. They appeared to feel at home, and they had full liberty in going in and out. I had no reason to think that they would have been better placed in asylums. They take their meals with the family, and live neither better nor worse than their caretakers. The fare is no doubt very homely, but it is that to which they are accustomed in their own homes. The same may be said of the accommodation. It is true there is no tesselated pavement, as in the most recent pauper asylum in Yorkshire, no windows of coloured glass, no expensive tiles in the passages or kitchen, but it has yet to be proved that these and other luxuries, paid for out of the rates of an already over-taxed population, are essential to the treatment, care, or real comfort of pauper lunatics. One remarkable feature of the furniture of the cottages of the Scotch is the box bedstead, two of which are frequently placed foot to foot, as a fixture occupying one side of the kitchen, and, it may be, other rooms. Take a few of the houses into which I entered as illustrations of the rest. The first was a crofter's house, in which the caretakers, a man and his wife, had the charge of an adult imbecile. He had a bedroom, but of his own choice he slept in one of the box bedsteads in the kitchen, saying that he was dull alone. I understood that the Commissioners had in the first instance objected to this arrangement, but afterwards acceded to it as permissible under the circumstances. In the next house there were two women patients, taken charge of by a man and his wife who had two children. It should be stated that it is the exception for there to be children in the house, and very properly, but in this instance no harm was likely to arise from their pres-

ence either to themselves or to the patients—probably the contrary as regards the latter. In a third cottage there were two men, one 70 years of age, while the house was occupied by a man and his wife and grandchild. An unmarried woman had charge of another cottage, and had charge of three women, who occupied one room, while a fourth patient slept in an attic. In one cottage were two men patients sleeping in the same room, one of whom, subject to fits, was engaged in rocking a cradle. It was a large two-storied cottage, and there were in the house, besides these patients, the caretakers, their son and his wife, and their baby. The man was a farmer, and had a dairy. In consequence of the patient being an epileptic the payment was 8s. a week.

It would be tedious to describe the other cottages which I visited in Kennoway, etc. They were all very similar in character, and contained from one to four patients. The rooms and the bedding were usually clean and comfortable, and with regard to the dress of the patients it was as tidy as you would wish to see it.

It is very possible that a less favourable impression would be received from an inspection of some other localities, especially in remote districts. I do not forget also that Kennoway has become a sort of model place, where it is expected that visitors will come for the purpose of forming an opinion in regard to the working of the system.

Dr. Lawson in the Scotch Report, 1887, shows the extent of the aggregation of patients in and around the parish of Kennoway, by stating, that if we were to take as a centre the village of Star, on the outskirts of that parish, and to draw a circle from it with a radius of ten miles, it would define an area in which, during the year 1886, he visited 82 men and 150 women, a total of 232 pauper lunatics in private dwellings.*

With regard to the legal documents required in these cases, the certificates consist of one signed by a medical man on "soul and conscience," containing the facts of insanity or idiocy, and those which show that the patient is a proper person to be detained in a private dwelling. Then there is the statement very similar to that in the English form, but adding the degree of relationship with the person with whom it is proposed to leave the patient, the sex, age, and occupation of such caretaker, the accommodation the house affords,

* Compare with this the much larger proportion at Gheel given in my article, "A Recent Visit to Gheel"—"Journal of Mental Science," Jan., 1886.

the number of persons accommodated in it, distinguishing children and the nature and amount of parochial relief. Lastly, there is the form of application to the Sheriff or the General Board of Lunacy to grant the order or sanction (as the case may be) for the residence of a lunatic in the private dwelling of the person whom it is proposed to place in charge.

I must here refer again to the point of the official visitation of these patients. In this particular the Scotch consider the difference in practice between themselves and the English as all-important. First, the parochial medical officer must visit pauper lunatics at least once every three months unless otherwise regulated by request of the inspector of the poor. At every visit he enters in a book kept in the house a report of the mental and bodily condition of the patient. It is called "The Visiting Book for Patients in Private Dwellings." Secondly, there is the most important visitation by the Deputy-Commissioners in Lunacy, which is made twice a year.

Lastly, there is the inspector's visit. In regard to the removal of a boarded-out patient, an Inspector of Poor must intimate the same to the Lunacy Board within fourteen days. The same notice is required in regard to any alteration in the parish allowance, or in the event of the patient's recovery or death.

The question will, of course, be asked for what proportion of cases does the boarding-out system make provision. It appears from this year's report of the Scotch Board of Commissioners that on 1st of January, 1888, there were 11,609 insane and idiots in Scotland. Of these 9,760 were pauper patients, of whom 2,270 were taken charge of in private dwellings, being in the proportion of 19·5 per cent. of the total number, and 23·3 per cent. of the pauper class.

Dr. Turnbull, in an excellent paper read at Glasgow in August, states that considering what has already been accomplished, it is possible that in the future 28 per cent. of the insane in Scotland will be boarded-out. I suspect he is too sanguine. He says, "that the authorities of the city parish of Edinburgh have long recognized the value of the boarding-out system. One of the Assistant-Inspectors of Poor devotes a large part of his time to supervising it, finding suitable guardians, and seeing that the patients are efficiently and properly cared for. The parish is not exceptionally well situated for boarding-out. It draws its cases entirely from an urban population in the centre of

Edinburgh, and as patients cannot be suitably boarded in such a locality, it has been necessary to find guardians at a considerable distance from the parish itself. Many of the patients are boarded in different villages in Fife. In June of this year the total number of lunatics on the parish registers was 260. Of these 109 (or 42 per cent.) were in the Royal Edinburgh Asylum, or in special institutions for imbeciles; 78 (or 30 per cent.) were in the lunatic wards of the poor-house, and 73 (or 28 per cent.) were boarded in private dwellings. These proportions are almost identical with what they were in 1883, showing that the present state of matters is not exceptional, but can be steadily kept up" ("Journal of Mental Science," Oct. 1888, p. 375).

Let us now take this year's reports on the condition of patients in private dwellings by the Commissioners who visited them, namely, Drs. Sibbald, Fraser, and Lawson. There has been in Fife an increase in the number of patients in specially licensed houses, as compared with the previous year, while in some other counties the number had diminished. Dr. Lawson states that there is a growing tendency to the concentration of the population of such houses in this county and that of Perth. In Fife there was an increase of 46 per cent. in 1885, 40 per cent. in 1886, and 7 per cent. in 1887. It is in the villages of Kennoway, Star, Thornton, and Auchtermuchty, that this concentration has taken place. I mention this fact more especially, because it is not desired by the Lunacy Board that the population of any one district should be crowded with the insane. It would be regarded as a misfortune if the example of Gheel was followed in this respect. The ratio of insane to sane is not very great. It should be noted that the patients boarded-out in specially licensed houses are, with scarcely any exception, under the care of unrelated guardians. Again, of the single patients visited by Dr. Lawson in 1887, 40 per cent. were living with non-relatives. Dr. Lawson answers the question—Do not these features—the growing aggregation and the alien guardianship—appear anomalous inasmuch as the breaking-up of aggregations in asylums and the return of uncured lunatics to their own homes, would seem to be the great aim of the boarding-out system—by pointing out that "the aggregations in villages are not essential to the system; that they have led to no inconvenience; and that efforts have been made successfully to get Inspectors of Poor to open up new areas in cases where it appeared to be injudicious to swell the number of

insane residenters by granting additional special licences."* The advantages of moderately sized aggregations are, however, fully recognized. They "make the labours of the inspector and the medical man easier and more capable of systematic performance, and consequently more regularly performed." Experience in Kennoway and other districts induces Dr. Lawson to prefer the guardian "to undertake at first the care of only one patient, that only after experience and repeated visitation on the part of officials, a special license for two should be granted, and that on no account should a license for three or four patients be given, unless where some particular qualification on the part of the guardian is combined with special fitness of the home and the neighbourhood. Rigid adherence to such a rule would go far towards preventing the risk of overcrowding villages with fatuous paupers."† An extremely important and practical observation is made by Dr. Lawson, which bears with great force upon the relative advantages of the Scotch and English systems of boarding-out. It is certainly a very melancholy conclusion to come to, but if it be true we must accept it and adapt our form of provision for the chronic insane to it. The question then is, Does the related or the unrelated guardian best fulfil his or her duties to the patient? The answer given by Dr. Lawson is this: "The unrelated guardian is generally more efficient, more amenable to advice and direction, and being completely under the control of the parochial authorities, cannot, as related guardians sometimes do, thwart their best endeavours for the patients by obstinate and misguided opposition." Hence it can be understood why Dr. Lawson does not consider the increase of alien guardianship as an unqualified evil, and indeed, not necessarily an evil at all. I found from conversation with Dr. Sibbald, for whose opinion all who know him will entertain the greatest possible respect, that he has not lost any of his faith in the success of the boarding-out system. One point on which he insisted very strongly was the careful inspection of pauper patients when boarded-out, by the Lunacy Board in Scotland, and the absence of such inspection on the part of the English Board.

The testimony of Dr. Fraser to the advantages of boarding-out is as strong as it well can be. Ten years of intimate knowledge of its working leads him to the conclusion that it is alike beneficial to the insane and to the ratepayers, because it avoids the erection of costly asylums and the congregation

* "Report of Scotch Commissioners, 1888," p. 118. † *Op. cit.*, p. 119.

of vast numbers of lunatics in one building, while the cost of maintenance is, as we have seen, less than the cost of those provided for in asylums. Again, it is urged that by this means the insane have natural surroundings and domestic care, thus increasing their comfort and promoting bodily health, as proved by the tables of mortality.* If all this can be obtained, and it does not interfere, as alleged, with the safety of the public, it is, I say, an enormous boon to any country which adopts this system. The misery and neglect, which Sir Arthur Mitchell has not concealed when he discovered them among the insane cared for in private dwellings, are likely to be prevented by good and frequent inspection, and, therefore, cannot be fairly put to the account of the boarding-out system. At the same time, it must be admitted that abuses are *more* likely to be practised and concealed in private than in public modes of care and treatment.

Dr. Fraser, in his last report on patients in private dwellings, states that during the three years he has worked in his district, which includes 22 counties, the number of the pauper insane thus located has risen from 1,087 in the year 1885 to 1,192 in 1887, an increase of 105 in three years, which he regards as very satisfactory.

The conclusions to which a visit to the boarded-out patients in Scotland leads me, may be briefly stated as follows:—

Success altogether depends upon the careful selection of cases, the equally careful selection of guardians, proper accommodation and locality, frequent and efficient inspection, and, lastly, the character of the household in reference mainly to sex and age.

As regards the cases suitable for boarding-out, it would be a fatal mistake to suppose that all dements or idiots can be safely cared for in this manner. A very considerable number must always require asylum care and treatment. I am sure that the Scotch Commissioners are sufficiently alive to the necessity of bearing this in mind.

Next, as to the guardians or caretakers, it seems to me perfectly certain that the qualifications necessary for occupying this position are not so common as to render it likely that the area over which an insane population can be scattered will be very extensive.

So, again, as to proper and sufficient accommodation and suitable locality, it must often happen that these are not favourable to the carrying out of the system.

* See Scotch Report, p. 107-8.

That frequent and efficient inspection is necessary to prevent neglect or cruelty is obvious. I trust that in the case of Scotland the visits of the medical officer every quarter and the Commissioners or Deputy-Commissioners do, to a large extent, prevent the abuses likely to occur. It may also be hoped that the observations of neighbours may exert a wholesome check upon the actions of the guardians. It is admitted that lamentable results have occasionally occurred in the families of the caretakers. Perhaps the wonder is that these have not been more frequent.*

Lastly, but of almost primary importance, is the constitution of the household in which it is desired to place the patient. In many instances it will be highly unsuitable to allow children or young women to be in the house, although the patient might be very properly placed in the cottage of an elderly couple. I consider it of the utmost importance that, while the interests of the insane are being regarded, we should not lose sight, as there is great danger of doing, of the interests, from a moral point of view, of the families into which it is desired to introduce a lunatic.

In conclusion, I would say that if these conditions are not fulfilled, the boarding-out system will prove a most unhappy failure, and the condition of the patients in regard to comfort, cleanliness, protection, and treatment will contrast very unfavourably with that usually witnessed in modern asylums; while, on the other hand, if these conditions are fulfilled, the number of cases placed out in cottages, although comparatively small, will be, I grant, a sensible relief to the ever-growing demands made upon asylum accommodation.

The following tabular statement, prepared from the last Scotch Commissioners' Report, will prove useful:—

January 1st, 1888.	M.	F.	T.
Number of Pauper Lunatics in Private Dwellings in Scotland	876	1394	2270
Increase during the year, 130.			
Visited in the County of Midlothian:—†			
Resident with Strangers	16	54	70
„ „ Relatives	23	32	55
Total Pauper Patients	39	86	125

* See Record of Accidents, etc., in the Commissioners' Report, 1888, p. 113 and 122. For an authoritative and candid account of the boarding-out system, see Sir Arthur Mitchell's book, entitled "The Insane in Private Dwellings." Edinburgh, 1864.

† Many who are chargeable to Midlothian are boarded out in other counties, the majority being in Fife.

Additions to the numbers in Midlothian (18 being Transfers)	6	15	21
Recovered	0	1	1
Transferred to other Counties	2	4	6
" " " Asylums	1	3	4
Removed from Poor Roll	1	3	4

Visited :—	Single Patients.	Specially in Licensed Houses.	Tl.
1. In the County of Midlothian	77	48	125
2. " " Ayr	84	46	130
3. " " Banff	38	6	44
4. " " Berwick	21	6	27
5. " " Caithness	62	3	65
6. " " Clackmannan	3	0	3
7. " " Dunbarton	11	0	11
8. " " Elgin	31	12	43
9. " " Forfar	74	19	93
10. " " Haddington	20	10	30
11. " " Inverness	96	23	119
12. " " Kirkcudbright	19	4	23
13. " " Lanark	115	57	172
14. " " Nairn	8	0	8
15. " " Orkney	30	0	30
16. " " Peebles	3	0	3
17. " " Renfrew	23	1	24
18. " " Roxburgh	11	2	13
19. " " Selkirk	4	0	4
20. " " Shetland	44	3	47
21. " " Stirling	30	101	131
22. " " Sutherland	34	1	35
23. " " Wigtown	42	0	42
24 " " Aberdeen	119	9	128
25. " " Argyll	71	23	94
26. " " Bute	35	14	49
27. " " Dumfries	36	5	41
28. " " Fife	40	241	281
29. " " Kincardine	6	7	13
30. " " Kinross	4	7	11
31. " " Linlithgow	15	0	15
32. " " Perth	97	97	194
33. " " Ross and Cromarty... ...	85	0	85
34. " " Western Isles, Skye, etc. ...	57	0	57
	1445	745	2190*

* The above is a decrease since last year of 24 in the number of Single Patients visited, and an increase of 30 in the number in Specially Licensed Houses, or a net increase of six.

Number of Admissions during the year, 146; being 79 less than in 1886.

Of these Admissions, four have recovered, 12 being removed to Asylums, three withdrawn from the Poor Roll, and one died, being 20 Discharges in all. Of the 146 Admissions, 101 were Removals from Asylums or lunatic wards of Poor Houses, and 45 were persons certified to be lunatics while residing in private dwellings, their continued residence being sanctioned by the Board.

Antifebrin in Pyrexia. By Wm. Julius Mickle, M.D., F.R.C.P., Grove Hall, London.

(*Read at the Annual Meeting, Brit. Med. Asssoc., Aug.* 10*th*, 1888.)

The following relates to antifebrin as an antipyretic remedy. The cases were those of insane adult males. And what I shall have to say chiefly concerns phthisical pyrexia. Subsequently, I will briefly touch on the use of antifebrin in various inflammatory febrile maladies affecting the insane.

For convenience, will first be stated, in summary, some of the conclusions to which experience leads me: and then will be given brief abstracts of a few illustrative cases; both of phthisical, and of ordinary inflammatory, and other pyrexial, cases. In most of the instances in which it is not specified otherwise, the morning temperature was taken about 11 *a.m.*; the evening temperature at 9 to 10 *p.m.*

In subacute phthisis; if, for a time, the temperature shows moderate evening rise above the normal, the morning temp. being at or about normal; and then comes ascent to a moderately higher level of temp., both morning and evening, antifebrin, in a 5 grain dose, given late in the morning, lowers temp., and so checks the evening rise as to bring the evening temp. down, or nearly down, to the normal level.

In chronic phthisis; with a moderate evening rise of temp., the several earliest doses of 5 to 8 grains of antifebrin at night, not only reduce the temp. soon, but also make that of the following mornings both subnormal and lower than it had previously been. Omit antifebrin, and some days later the morning, and especially evening, temps. become raised, and the antifebrin at night reduces temp., and even that of the next morning, to normal.

In acute pneumonic phthisis, at first antifebrin reduces temp. moderately. It also changes the tendency, and the form of temp. chart, from those of morning rise of temp. to those of evening rise. Later on, antifebrin (grs. 8) reduces the temp. markedly, as a rule.

Speaking of chronic and acute cases more collectively; antifebrin, in some instances, given in the morning reduces a high morning temp., and keeps it reduced during the evening, a decided effect lasting 8, or 10, or more, hours. Yet, in some instances, given in the middle of the morning, it reduced the morning temp., but did not prevent a rise of

temp. in the evening, again, to the extent of 1°, 2°, or 3° *Fah.* But, in some instances, given on a high morning or evening temp. it reduced the temp. 4° or 5°, sometimes much less; the effect passing off in 6 or 4 hours; yet, subsequently, it did not keep down the evening temp. if given late in the morning, but did so markedly if given later on; and best if given (say) 4 hours before the evening temp. was taken.

The effect of a late morning, or midday, dose of antifebrin (8 or 5 grains) on the temp. of the afternoon and evening was usually more marked and protracted in chronic than in acute phthisis.

In chronic phthisis, with a temperature somewhat higher in the evening than in the morning; when the temp. began to range high, and 8 grs. of antifebrin were given at midday, the temp. by 6 p.m. and 9½ p.m. was reduced, on the average, 4·7° *Fah.*; the temp., taken at the later of these two last-named hours, having usually risen about half a degree during the last 2 or 3 hours of this space of time. With temps. ranging less high the reduction of temp. at 9 p.m. was, on the average, 2·4° *Fah.*, under similar circumstances of treatment. In another case the average reduction of temp., so long afterwards (9 hours), was less, but here only 5 grains of antifebrin were given, *per* dose. In another, wherein the evening temp. usually, the morning temp. sometimes, was the lower of the two, and the temps. began to range higher, the high morning temps. under 10 grains of antifebrin, given immediately, were reduced, on the average, 3·8° *Fah.* during the evenings, that is to say from 6½ to 10½ hours later. In another case, with tendency to evening rise of temperature, when the morning temps. became high (102°) 8 grains of antifebrin, taken before midday, did not prevent the existence of a slightly higher temp. late in the evening (10 hours later); but on similar occasions 12 grains of antifebrin so reduced the temp. that even 9 or 10 hours later it was down 4·2° *Fah.*

As a rule, in chronic cases evening temps. of 100°—3° were soon reduced by antifebrin, and the patients had warm perspiration.

On some occasions, in some cases—acute, subacute, or chronic—antifebrin failed to prevent some rise of temp.; or failed to affect temp. clearly or conspicuously.

In phthisis, therefore, in insane persons, with morbidly heightened temps., a moderate dose (5 to 8 grains; less in

the feeble) of antifebrin, given once, or at most twice, a day, has a marked effect in lowering temp.

When the temp. in acute or chronic phthisis reaches an unusually high degree, the effect of antifebrin in these doses in reducing temp. is less constant, and fails in some instances; although its effect in such cases is usually antipyretic, and it often lowers the temp. to a striking extent. But when the ordinary dose of antifebrin fails, the temp. remaining obstinately high, a larger dose (10 to 12 grains) often succeeds in a very decisive way, especially if now associated with tepid sponging of the body.

The effect of antifebrin in reducing temps. was usually marked in an hour or two, and continued from 2 to 10 or more hours; according to the conditions and circumstances of different cases, or of the same cases.

The pulse and respiration, as a rule, are lowered in frequency simultaneously with the fall in temp. under antifebrin. But the slowing of pulse and of respiration is apt to be less marked, proportionally, than the decrease of temp. In some examples the respiration was more lowered than was the pulse, proportionally;—in other examples the reverse was observed. In some instances the pulse-frequency was somewhat accelerated under antifebrin, notwithstanding that the temp. was diminished simultaneously. Less frequently, the same was true of respiration that was last stated as regards the pulse: namely, some acceleration notwithstanding the lowering of temp. When the temp. rose in spite of antifebrin the simultaneous rise of pulse and respiration was in some cases more than, in others less than, proportionate to the rise in temp. If the pulse was accelerated, simultaneously with a fall in temperature under antifebrin, —as in the exceptional examples a moment ago mentioned, —the pulse was sometimes found to fall again, as the temp. again rose and the effects of antifebrin were passing off. Here, the effect of antifebrin on the pulse was somewhat unfavourable, but of no decisive importance; the simultaneous lowering of temp. being a great, and far more than counterbalancing, benefit.

In one, unusually marked delusions of hostility and injury supervened on a large dose; but whether in any way connected therewith was not clear.

I utterly dissent from the observer (Br. Med. Jl., March 3, 1888, p. 489) who states that the best initial dose in phthisical pyrexia is 10 grains. As a commencing dose, at least, this is

too large; and in many cases would not be altogether safe. Moreover, in many cases, its effects would be unnecessarily great—too great—upon the temperature, too disturbing to the organism. Five or four grains is sufficient to begin with. If it is attended only by good, but does not, in that dose, sufficiently control the temperature, it may be carefully increased, and the effects carefully watched. Only just so much must be administered, and with such frequency, as is capable of controlling the rise in temperature. Twelve grains I never exceed, and rarely prescribe so much. In feeble patients, with advanced disease, three grains is sometimes enough. To the very feeble, with far advanced pulmonary destruction, with marked exhaustion, or with cyanotic face and hands, I do not administer the drug at all. The drug is a good, but powerful, one; and skill and carefulness in handling it, therapeutically, must not be lacking. And I repeat that the doses I have mentioned were given once; at most, twice; in the 24 hours.

Since writing this paper, I find confirmation of these views in the experience of Stachiewicz, who in emaciated weak patients with advanced phthisis gave 1 to 2 grains; and to patients in fair general health, but either with recent progressive disintegration, or with old cavities and slowly progressing infiltration, of lungs, gave 4 to 8 grains.

As illustrations of the effect of antifebrin in reducing temp. in the inflammatory febrile states occurring in the insane I may mention such cases as those of:—

1. Vesical catarrh: hemiplegia: organic disease of brain: sclerosis of cord. Antifebrin, in five grain doses, had a fairly antipyretic effect.

2. Meningitis; hallucinatory confusion. When the temperatures ran high, antifebrin, grs. 8 to 12, reduced it for some time, and so that even 9 or 10 hours later the temperature was down 2° to 3°.— [Delirium came on whilst antifebrin was being taken].

3. General paralysis—last and bedrid stage—hypostatic congestion, and pneumonia; bedsores. Antifebrin grs. 4, and a fall of 6° in $2\frac{1}{2}$ hours. Again, antifebrin grs. 3, and a fall of 2·2° in $2\frac{3}{4}$ hours; and of 4·4° in $9\frac{1}{2}$ hours. Another day, grs. 3, and a fall of 2·8° in 5 hours.

Abstracts of some cases of phthisical pyrexia in adult males.—Effects of antifebrin.

1. Phthisis with congestive and inflammatory symptoms at one apex: diarrhœal attack during which was tendency to

evening rise of temp., then a.m. and p.m. temps. about 99°; then gradually rising temps., with *p.m.* exacerbations, and the morning temp. reaching 100·3°; Antifebrin, grains 5 were given immediately, and the evening temp. was lowered to 99·4°. Next day, a.m. temp. 101·4°, antifeb. grs. 5, and p.m. temp. 98·4°;—next day a.m. temp. 101°, antifeb. grs. 5, and p.m. temp. 99°;—next day a.m. temp. 102°, the same dose taken, and p.m. temp. 98·4°. Subsequently, the temps. being below 100°, antifebrin was omitted; thereafter was usually a slight evening rise of temp. Thus, in a case with tendency marked to evening rise of temp., a single daily dose of 5 grains of antifebrin very decidedly reduced the, otherwise, rising temp., and so that the p.m. temp., 10 hours later, was within the range of 98·4° to 99·4°, the average fall of 2·4° contrasting strongly with what would have been a rise had it not been for the antifebrin's influence.

2. Chronic phthisis, tendency to evening rise of temp. For a space of time, morning temps. about normal, evening temps. just above 100°; subsequently evening temps. about 99°; then morning temps. between 100° and 101°; and the evening temp. reaching 101·5°, 8 weeks before death; of antifebrin, grs. 5, were given, and reduced the temps. then; those of the following mornings, also, being again down to normal, or even below it. Here the first two or three night-doses were followed by a slightly subnormal temp., even so late as next morning.

Lungs: old, leathery adhesions; vomica at apex, and cirrhosis and slight bronchiectasis: caseous nodules and granulations scattered throughout lungs. Left lung the more diseased one. Kidneys slightly granular. Liver slightly lardaceous.

3. Phthisis and mitral regurgitation. Pneumonia and hæmoptysis supervenient on quiescent chronic tuberculization of right lung's apex, and lighting up rapid tubercular changes until death, 5½ months later, at the end of December.

In August, Quinine in divided doses, grs. xv daily, yet temps. at times 102°—4°.

In Sept., moderate effect of antifebrin, given occasionally, in reducing temp.

In end of Oct. and beginning of Nov., 4 grs. of quinine did not prevent the morning rise of temp., but added to its evening fall. From Nov. 22 to the latter part of Dec., patient on antifebrin, usually twice a day.

The tendency was, and had been, to a morning rise of temp.; but antifebrin (8 grain-doses) not only brought the temp.

down, but also changed the thermic rhythm, converting the cyclic tendency to a morning rise of temp. into a tendency to an evening elevation; and if given before the time of usual high morning temp. prevented the latter.

On Nov. 25th, 26th, and 28th, the high temp. of the morning was reduced by antifebrin in the 8-grain morning dose, and remained well down by 9.30 *p.m.*—Nov. 29th, 30th, and Dec. 1st to 5th, the antifebrin draught, usually given about two hours before the morning temp. was taken, reduced the latter to about 100°, except on one day, when it was 101·3°, and on another 102°. During the later days of this space of time the temp. rose somewhat again by evening (9 to 10 p.m.), and to 101°—2½°; but on two occasions only to 100°.

Now, after this, on Dec. 6th, no antifebrin was taken in the morning, and the temp. at 11.30 a.m. was 102·6°.—Haust. antifebrin grs. 8.—At 4 p.m. temp. knocked down to 98°; but by 9½ p.m. temp. again 102·6°; Rep. haust. antifebrin; which lowered temp., but by next morning the temp. was again high (102·2°). Rep. haust. antifebrin, and this reduced temp., which by evening was still only 101·4°. On 8th Dec. antifebrin failed. On the 9th, given in *a.m.*, one hour before, it reduced temp. to 101°; but by 9.30 *p.m.* the temp. had again risen a little, and was 101·6°. On Dec. 12th a rising morning temp. of 101·5° was brought down, by antifebrin, 1° in one hour, but by night had again sprung up, and to the height of 103·4°; and on the 13th the draught, taken on a morning temp. of 101·4°, did not avert the evening rise to a higher level. On the 14th, antifebrin at 3 p.m. failed to prevent the temp. from rising by 9.30 p.m. On the 19th and 20th, antifebrin had produced but comparatively slight effect in three-quarters of an hour, and in half an hour. After this the usual rise of evening temp.—marked for several days—was stopped thus:—temp. 11 a.m. 100·5°; antifebrin at 5 p.m.; temp. at 10 p.m., 98° only. Next day, given at 11.30 a.m., it failed to prevent some little rise (four-fifths of a degree) by 9.30 p.m.—Thus, in this case, we trace a usual effect of antifebrin in a markedly falling temp.; and in a change of morning rise to evening rise. Also, given an hour or two before the time of usual high temp., antifebrin reduced the temp. of that time to about 100°; but to prevent an evening rise it (latterly at least) had to be given in the afternoon, a morning dose not being sufficiently protracted in effect for that purpose.

4. Chronic phthisis. Beginning sixteen days before death, antifebrin, in 4 or 5 grains doses, given after high evening temperatures, reduced the latter, and was followed by ordinary, *i.e.*, normal, morning temperatures. But one morning the temperature rose to 102·2°. Antifebrin was given at three *p.m.*, and, instead of continuing to rise, the temperature at 9.30 p.m. was only 101·2°.

Necropsy. Advanced caseation; considerable cavitation; old adhesions; 20 ozs. fluid in a pleural cavity. Basic congestion, and pneumonic patches.

5. First attack of phthisis about 10 years before death, entirely cured. A second attack of phthisis coming on about 3 years before death. From time to time, a cardiac apex murmur. In March, nearly eleven months before death, double basic pneumonia, delirium, irritability, destructiveness. At this time, also, dulness and somewhat bronchial breathing at apices, anteriorly. Necropsy; left lung, partly consolidated by caseous material, partly riddled by cavities; partly congested, œdematous. Old, calcareous and putty-like remnants of old cured tubercle. Right lung; in pleural cavity some lymph-flakes and 10 ozs. serous fluid; at the apex, cirrhosis, old dried-up tubercular changes, and a cavity. Heart; dilated left chambers, wide mitral orifice; aortic-valve changes. Pale, fatty-looking kidneys. Liver; slight cirrhosis, and perihepatitic adhesions.

After having been on grs. 14 of quinine in the 24 hours, and this being omitted, he was ordered antifebrin 8 grs. in May: and had it much in May, June, and July; on a few days in Aug. and Sept.; on a good many days in Oct. The tendency was to evening rise of temperature. The antifebrin was, during the earlier part of the treatment, given at 2 p.m., and repeated at night if necessary. The evening temps., which, earlier in June, had been 99° to 100° (except once 101·3°) became higher (99°-101°) after hæmoptysis on June 15th; and in July were irregular, occasionally 102½° to 103°. To briefly sum up;—Antifebrin, in doses of 8 grains, reduced the temperature decisively by two hours afterwards, the patient being also put, by its operation, into a warm perspiration.

6. Phthisis of over a year's duration. Died April 1st, 1887. In March, from 1st to 7th, grs. 10 quinine daily, and temps. (all but two), both *a.m.* and *p.m.*, ranged from 100° to 102°. Only a few doses of antifebrin, but these of marked effect, commencing March 7th. Before and after the days on

which antifebrin was taken, there was, usually, a slight morning rise of temp., but sometimes a slight evening rise. Then, for three days, the temps. beginning to run higher, antifebrin (grs. 10) was given after the morning temp. was taken.

1. Antifebrin 10½ hours previously reduced *p.m.* temp. 2·4° below *a.m.* temp.

2. Antifebrin 6½ hours previously reduced *p.m.* temp. 4·2° below *a.m.* temp.

3. Antifebrin 9½ hours previously reduced *p.m.* temp. 4·8° below *a.m.* temp.

Patient, intensely irritable and entertaining delusions of evil intent against his life, now refused medicine.

Lungs: caseation; infiltration; cavitation; congestion; thick old close adhesions; reddened bronchial mucosa. Right lung, less excavation and congestion, but more œdema, of the two. Large, slightly lardaceous spleen. Liver, slightly lardaceous, old perihepatitic adhesions.

7. Chronic phthisis; bronchitis; emphysema. Two and three months before death antifebrin in doses of 8 grains. Marked effect, on June 25, 1887, of antifebrin given on a *p.m.* temp. of 101°, and next a.m., temp. only 97°, and lower than it had been for weeks previously, at least. On first six days of July, antifebrin, taken on high *p.m.* temps., reduced them, and next *a.m.* temps. normal. On 7th, *a.m.* temp. 102°. Haust. antifebrin. *P.m.* temp. only 100°. After several more daily doses, temps. kept for a time below 100°. July 15 to 21, *a.m.* temps. about 99°; *p.m.* temps. 101°—2°, and evening haust. antifebrin. July 24, *a.m.* temp. 100·5°, morning antifebrin; *p.m.* temp. only 99·6°.—25th, *a.m.* temp. 101·6°, morning antifebrin; *p.m.* temp. only 98·4°.—On 26-7-8-9, midday high temps. (102·6° to 104·6°), midday antifebrin; and at 6 to 9.30 *p.m.*, temps., *on average*, down by 4·7° Fah.; rising again, in two instances, ·4° and ·6° during the last 2½ and 3½ of those hours, respectively. Later on, temp. down; *a.m.* temp. about normal, p.m. temp. 100°-1°; ordered antifebrin if temp. was above 100°.

8. Phthisis. Beginning two months before death, antifebrin, grs. 5, repeated at night if necessary. Later, 8 grs. and 10 or 12 grs. In May, antipyretic effect usually well-marked. The two doses, per day, on June 4th, 5th, and 6th, not markedly antipyretic. In June, temps. usually high at night; patient sponged and antifebrin increased on June 24th, on which day the morning dose of 8 grs. did not prevent evening elevation to 103°, and grs. 12 were then

taken; next morning, *a.m.* temp. 98·3° (antifeb. then); at night, temp. 101·5°, and grs. 12 antifeb.; next morning, *a.m.* temp. 99·4°; and so on, until, for the first time lately, came a high *a.m.* temp., 102·6°, and antifeb. grs. 12 (first *a.m.* dose for several days), and *p.m.* temp. 98·4° (fall of 4·2° at p.m., in spite tendency to *p.m.* rise, lately). Next day, no antifeb. until usual evening rise had occurred. Similar series of events on July 2nd and 3rd. To July 10th, high evening rise—morning temp. about normal.

Necropsy. Advanced excavation, caseation, congestion and œdema of lungs; old close thick adhesions.

CLINICAL NOTES AND CASES.

*Cases of Disease of the Brain in Imbeciles.** By Fletcher Beach, M.B., M.R.C.P., Medical Superintendent, Darenth Asylum.

Actual disease of the brain is not so common in imbecility as want of development. It is more usual to find the convolutions simply arranged than to find tumours, hydrocephalus, sclerosis, etc. The convolutions in some cases are quite half an inch in width, and in such cases the arrangement must necessarily be simple. Occasionally there is a fairly complex arrangement, especially where the imbecility has come on in childhood. Sometimes the brains are very large, at other times very small; sometimes the convolutions are wide, at others narrow, but whether the arrangement of the convolutions be simple or complex, the uniform conditions found are imperfectly developed brain cells.

On this occasion, actual disease of the brain will be more especially considered, and I proceed to give examples. The two conditions producing undue size are hydrocephalus and hypertrophy.

Hydrocephalus may be present at birth, or come on afterwards. Of course all cases of hydrocephalus do not become imbecile. Some die, some recover without intellectual impairment; others neither die nor recover, but become imbecile. Probably hereditary neurosis is the deciding cause. The shape of the head in hydrocephalus is different from that found in rickets. In hydrocephalus the

* Read at the Psychology Section of the British Medical Association, August, 1888.

fontanelle is raised; in rickets it is depressed and the head is elongated in the antero-posterior diameter. In hydrocephalus it approaches the globular form, and the antero-posterior and transverse diameters are nearly the same. The widest circumference is often at the temples, where there is sometimes a perceptible bulging above the usual place of greatest width around the superciliary ridges. Occasionally the head is not larger than usual where the brain has been diminished by the pressure of watery effusion, but this is an exception to the general rule.

J. R., aged four years when admitted, is a case of congenital imbecility. The father suffers from debility, and is weak-minded; the mother is healthy. There was spinal paralysis in the family some generations back. Hereditary neurosis is, therefore, present in this case. Of the five children in the family four are physically weak. One suffers from hemiplegia, one is consumptive, and another child besides the present case has hydrocephalus. The parents are temperate, and not connected by consanguinity. J. R. was born at full time, but the labour was tedious, and the child was asphyxiated. At nine months he had two weeks of continuous convulsions, used to sweat greatly, and wasted away for a time. He has always been helpless. He is a well-nourished child of fair complexion. The head is of the usual hydrocephalic shape, but is flattened posteriorly from his always lying on his back. Circumference, $21\frac{1}{4}$ inches; transverse diameter, $15\frac{1}{4}$ inches; antero-posterior, $14\frac{1}{4}$ inches. He is quite helpless, and is unable to speak. Countenance pleasing and contented; mental capacity small; power of observation good, and fair memory of faces. He has physically improved during his residence in the asylum, but mentally is in the same condition.

The following case, though hydrocephalic at birth, did not become imbecile until some time afterwards.

F. W., aged 18, whose photograph I send round, on admission was found to be a well-nourished boy, with weak circulation, dull, and listless. The family history is bad. His father and paternal grandfather died of apoplexy, and two paternal uncles are insane. In addition all the father's side of the family are excitable, and there is a history of phthisis on the mother's side. When eleven years old, he screamed and became very excitable, but had no fit according to the mother's account. It is very probable, however, that he had one, from the fact that he afterwards became paralyzed on the right side. He remained so for six months, and then gradually recovered. There was no sign of paralysis when he was admitted, though he was weak in both legs. As he grew up, he was noticed to get weaker and become dull. His parents were

respectable people, and he had every chance of a good education, but was unable to learn. When admitted, he could only count to six, and though he was at school in the asylum for three years and a half he only learnt to read and write a few letters, repeat easy multiplication tables, and recognize a few colours. After four years' residence he grew very weak, passed his urine and fæces under him, and gradually died of diarrhœa. He had no fits while in the asylum, so that his gradual deterioration was probably due to increasing quantity of fluid in the brain pressing on the cerebral tissue. Unfortunately I was unable to obtain a post-mortem examination.

The largest quantity I have found in the brain is 36 ounces, but a case is on record of a man who lived to the age of 30, and from seven to eight pints of fluid was found in the cranium after death.

Hypertrophy of the brain is a comparatively rare disease, and has attracted little notice in England. It is chiefly met with in asylums for lunatics and imbeciles. Laennec first drew attention to its occurrence in children, to its similarity to chronic hydrocephalus in many of its symptoms, and the likelihood of its being mistaken for it. The cause of the disease is obscure. Brunet defines it as "an increase in the weight of the organ due to a disorder of nutrition leading to an alteration in the nervous substance." The process is not one of mere increased growth, but the nutrition of the organ is modified in character as well as increased in activity. According to Rokitansky the augmented bulk is not produced by the development of new fibrils, or by the enlargement of those already existing, but by an increase in the intermediate granular matter, most probably due to an albuminoid infiltration of the structure. My own observations lead me also to the same opinion. The brain substance is tough like boiled white of egg or cheese, and the change is accompanied by an increase in the number of blood-vessels and the presence of a large number of leucocytes. The parts affected are chiefly the white matter of the two hemispheres, sometimes the corpus striatum and optic thalamus, rarely the pons and cerebellum. MM. d'Espine and Picot and Ross consider the affection to be a congenital one, and in this I concur. Imbecility is said not to follow unless the hypertrophy is accompanied by encephalitis, which usually follows in the first or second year. The principal symptoms are headache, at times intensified, excitement followed by coma, blunting or arrest of intelligence, difficulty in walking, and convulsions.

The symptoms are less marked in children than in adults, because the brain is less compressed, the cranial cavity increasing in size as the brain enlarges.

The following case is one of imbecility due to hypertrophy of the brain.

A. C., whose photograph I send round, was 10 years old on admission. His mother was hysterical, and had an epileptic fit when pregnant with her eldest child. The maternal grandmother died of epilepsy. On the father's side there is a history of phthisis. The mother had a fit when pregnant with A. C., and became unconscious. Evidently hereditary neurosis plays an important predisposing part in this case. When two years old, while teething, he had a fit, and he has had them ever since. He was always dull and sleepy, and as a child used to " bob " his head forwards. His head was large when born, but the projections on the forehead have since come on.

He is a fairly grown boy for his age, but has a very vacant look. The head is large, square in shape, and there are well-marked frontal prominences. Circumference measures 22 inches; transverse diameter, 14 inches; antero-posterior diameter, 15 inches; width of forehead, $4\frac{5}{8}$ inches. He complains at times of headache, and points to the right temporo-parietal region when asked where the pain is situated. There is a very slight depression, the size of a sixpence, in the region of the anterior fontanelle. He walks slowly and totteringly, hanging his head slightly forward, and with the left shoulder depressed. He goes to school fairly regularly, but makes no progress. Questions are answered slowly, and there is a distinct pause, sometimes a minute in length, before the reply commences. He suffers much from headache, and altogether is gradually deteriorating. Towards the last he became weaker on his legs, and fell about more. He had a number of epileptic fits during his residence in the asylum, and died exhausted July 14th, 1882, after a series of very severe ones.

At the autopsy the cranium was found to be very thick and eburnated. The brain weighed 53 ounces, was hard, and cut like cheese. Convolutions simple in arrangement. White matter of brain in excess both relatively and absolutely. Central parts of brain softened. About three drachms of fluid were found in the lateral ventricles.

Andral states that there are two periods in the disease. In the first, the chronic stage, the symptoms are slight. In the second, unless the patient has been previously carried off by the intervention of some other disease, those characterizing an acute affection appear, and the patient dies of compression of the brain or acute hydrocephalus. In eight of the cases which I have had under treatment, four died in convul-

sions, two while in a comatose state, and the remaining two were carried off by diarrhœa and bronchitis. The brain in the above case, though heavy (53 ounces), is not by any means the heaviest I have seen. In another patient who died aged 15 years the brain weighed 62 ounces.

The accompanying table, which I drew up some years ago to illustrate a paper on the subject, gives the weight of eight hypertrophied brains, and a glance at it will show that there is a great difference between the weight of the hypertrophied brains and the average weight of brains of persons of the same age. The brain of A. H. not only far exceeds that of the others, but greatly surpasses the average weight for his age.

TABLE showing weight of hypertrophied brains and average weight of brains of individuals of the same age.

Initials of Name.	Age.	Weight of hypertrophied brains.	Average weight of brains. Dr. Sims' tables.	Average weight of brains. Dr. Boyd's tables.	Average weight of brains. Dr. Beach's tables.
A. H. S. ...	5	49½	39	40·23	40½
A. G. D. ...	8	53	40	45·96	39
T. J.	10	55	40	45·96	40
F. D.	11	49	44	45·96	41
P. D.	11	49½	44	45·96	41
W. J. E. ...	14	52	44	45·96	41
A. H.	15	62	44	48·54	42
A. C.	10	55	40	45·96	40

The diagnosis of hypertrophy of the brain from chronic hydrocephalus chiefly rests on the history of the case and the form and size of the head. Dr. West remarks that "the symptoms of chronic hydrocephalus generally come on earlier and soon grow more serious than those of hypertrophy of the brain, and the cerebral disturbance is throughout much more marked in cases of the former than in those of the latter kind." My distinctive diagnosis of hypertrophy of

the brain from chronic hydrocephalus rests on the following points.

In hypertrophy of the brain, as a rule, the head does not attain so large a size as in chronic hydrocephalus.

In hydrocephalus the increase in the size of the head is most marked at the temples; in hypertrophy above the superciliary ridges.

In hypertrophy the head approaches the square in shape; in hydrocephalus it is rounded. In hydrocephalus there is often an elasticity over the late closed fontanelle; in hypertrophy there is none, and there is often a depression in that situation.

In hydrocephalus the distance between the eyes is increased from the fluid inserting itself between and distending the sutures formed by the frontal and ethmoid bones; in hypertrophy this is not the case.

As to the treatment, all that one can hope to do is to keep the patient in as healthy a state as possible, and treat any active symptoms which may arise.

Coming now to the opposite condition, viz., undue smallness, we find that this is met with rather frequently in imbeciles. The two forms of atrophy of the brain usually described are due, first, to incomplete development, and, secondly, to loss of nervous elements which had previously been present.

The first form, though not an actual disease, is sufficiently interesting to be mentioned here. Microcephalic imbeciles are instances of this class. Microcephaly may be general or partial. Some portions of the brain may be too small or altogether absent. I have found the convolutions of certain parts very much reduced in size from non-development, while the remaining portions are too large or normal. The occipital lobes are often arrested in growth in microcephalic cases and the island of Reil may be quite, and the cerebellum nearly, left uncovered. The corpus callosum is sometimes shortened posteriorly, and cases are on record where this portion of the brain has been wanting and the commissures deficient. Usually, however, microcephaly is general, and the deficiency consists in the smallness of the hemispheres. In the "Transactions of the International Congress for 1881," I have related two cases, in one of which the brain when removed weighed only seven ounces, yet a minute examination of it showed that nearly all the convolutions were present, though very small in size. In the other the brain weighed 20½ ounces.

The nerves of special sense are usually well developed in microcephaly, and the ganglia of the base and the spinal cord are of nearly normal size. The cerebellum is relatively much larger than in the normal brain, often being in the relation of one to three or four, the ordinary relation being one to eight.

The following are illustrative cases :—

G. L., whose photograph I send round, aged 13 years, was admitted January 19th, 1878. The father is a very hard drinker and often ill-uses the mother. He has an impediment in his speech and so have all his side of the family. The mother is a temperate woman, but has a brother in Colney Hatch Asylum. Intemperance and hereditary predisposition to insanity are therefore present.

The parents are not connected by consanguinity. G. L. had a small head when born. He did not walk till five years old and has never spoken. The mother ascribes his condition to ill-usage of herself by the father during her pregnancy. He is a twin; the other child is dead, but his head was of normal size. There have been 12 children, of whom one, a girl, aged eight years, who is under my care, is also microcephalic. Seven have died, and of them one was microcephalic and died in convulsions.

On admission, G. L. was found to be rather thin, with a muddy complexion and bird-like aspect. His head measured $17\frac{3}{8}$ inches in circumference (three to four inches below the normal size), $10\frac{7}{8}$ inches transversely, and 11 inches antero-posteriorly. Since his residence in the asylum his head has increased a little in size, being now $18\frac{6}{8}$ inches in circumference, 11 inches in the transverse diameter, and $11\frac{1}{8}$ inches in the longitudinal direction, but even now the outline of it, when compared with one of normal size, shows the great difference at once. His forehead was $3\frac{5}{8}$ inches in width. He had good use of his limbs and was not subject to fits. In temper he was somewhat stubborn, but was easily managed. He could not speak, but only made a sound like " Ah." He was able to take his food without assistance and could help in the ward, but he could not wash or dress himself without help. He had some power of observation, imitation, and attention, though but little memory. He went to school in the asylum daily, and at the end of three years was able to read some words with the manual alphabet, could spell " cap," write "a, o, d," from memory, hold up fingers as far as four to correspond with objects, and could match colours and forms. He had also learnt to make himself useful in household work, and could sew on buttons and do simple repairs of clothing. Considering the size of his brain, I think we may say he has made fair improvement.

The next case is of a much lower type.

T. J. A., aged five years, was admitted March 4th, 1887. The parents are healthy, temperate, and not connected by consanguinity, but the maternal grandfather is consumptive and suffers from epileptic fits. The patient was born at full time and labour was natural. The mother ascribes his condition to her being worried and frightened during pregnancy. He had fits at the age of 18 months up to two years. He has never talked nor walked. There are three other children, but their mental condition is not satisfactory. The hereditary neurosis has evidently passed over the parents and descended on the children.

T. J. A. is a thin child of fair complexion. In appearance he is dull and stupid, but is of very passionate temper and often screams without cause. His head measures 16 inches in circumference, 10 inches transversely, and nine inches antero-posteriorly. Width of forehead, $3\frac{1}{2}$ inches. He seems to notice his nurse, but has no power of imitation or attention, and little memory. He can hold a piece of bread in his hand and can feed himself with it and can kick his legs about, but cannot stand. He cannot utter a word. There is little chance of improvement.

Both of these cases, and especially the latter, have heads much below the normal size, and correspondingly the brains are deficient in development. It is not, however, only the smallness of the quantity of the brain, but deficiency in quality which is involved. If we look at sections under the microscope, we shall see the great difference between a normal and a microcephalic brain. In the latter, we notice the deficiency of cell processes and the retraction of the protoplasm in the cell, accounting for the spaces so often visible. As to the causation of microcephalic imbecility, it has been held to be due to the sutures of the skull closing in prematurely and so preventing the growth of the brain; but in opposition to this theory there is the fact that many cases have been collected with open sutures. According to Dr. Ireland "even in those cases where the sutures have closed in before birth, the question still remains whether the brain ceased to grow because the sutures are closed, or whether the sutures closed in because the brain ceased to grow; or, lastly, whether the brain and its coverings ceased to grow from a common cause."

The second form of atrophy, viz., that in which there is loss of nervous elements which had previously existed, may present itself in various forms, but the most interesting is, perhaps, that in which there is atrophy of one side of the brain, usually the left, with coexistent atrophy of the limbs on the opposite side of the body. Although imbecility

is not necessarily the result, yet instances of this disease are of fairly frequent occurrence in asylums for imbeciles. According to van der Kolk, everything depends upon the more or less healthy state of one hemisphere of the brain. "If, as from the nature of the case seldom occurs, the inflammation and affection of the pia mater has not extended to this hemisphere, if the grey matter under the cerebral convolutions has here continued perfectly sound, there is no reason why this remaining hemisphere should not be able to act without impediment in the exercise of those functions which are necessary to our mental powers, just as one eye sees as sharply though the other be lost. But where grey matter is injured in both hemispheres, particularly anteriorly, disturbance of the intellectual faculties will be inevitable."

An inflammation of the brain, meninges, or skull during fœtal life, or early childhood, no doubt will cause the disease. The paralytic form of imbecility, for instance, seems to depend upon an atrophy of the brain, caused by chronic meningitis or inflammatory processes in the cortical substance. Either of these causes may, of course, occur before birth, or come on afterwards.

The following case is an example of imbecility caused by atrophy of the brain :—

E. H., aged 18 years, was admitted into Clapham Asylum May 3rd, 1875, having been transferred from the Hampstead Asylum. For the following history I am indebted to Dr. Orange, formerly Medical Superintendent of the Broadmoor Criminal Lunatic Asylum. The father had died in 1868 of cancer of the bladder. The mother was a patient in Broadmoor Asylum, having killed one of her children while insane. The parents had been temperate people, and were not connected by consanguinity. There was no family history of epilepsy or paralysis. This was the eldest child. There had been one other, who was killed by the mother, as mentioned above. E. H. was of sound mind at birth, and was doing well at Southall School, but was sent to Hampstead Asylum in consequence of epileptic fits. These commenced at the age of $2\frac{1}{2}$ years, but the cause was unknown. Her intellect had become affected by the fits.

On admission, she was a fairly nourished girl of dark complexion, with loss of power of the right upper extremity, and weakness of the lower one on the same side. There was no means of ascertaining the cause of the paralysis, or when she was first afflicted with it. She was still having epileptic fits. She talked and answered questions with considerable intelligence, was of a quiet disposition, had pleasing manners, and was a general

favourite. Her mental capacity was very fair for an imbecile. She made progress at school in the intervals between the fits. In October she was noticed to be getting very thin, and, on examination, the physical signs of phthisis were discovered. She had attacks of *petit mal* very frequently, and became much emaciated. She died on the 21st of December, 1875, having been unconscious the preceding day for six hours.

The post-mortem examination was made 12 hours after death. The calvaria was removed, and the convex surface of the brain examined *in situ*. On stripping off the dura mater, the left hemisphere was seen to be much wasted, and the arachnoid membrane over its surface was in places thickened and opaque. The wasting was chiefly noticeable in the frontal and parietal regions. The texture of the hemisphere was evidently altered, for, to the touch, the left was hard and firm, while the right was elastic and apparently normal. The left middle lobe was much reduced in size, measuring only 1 inch transversely, the right measuring $2\frac{1}{4}$ inches in the same direction. There did not appear to be excess of fluid in the subarachnoid space, but as some drained away while removing the calvaria the absence may be accounted for. The brain was then removed, and found to weigh $28\frac{3}{4}$ ounces. A depression as large as a small pear could now be seen on the convex surface of the posterior half of the left hemisphere. On slicing through the brain transversely the left lateral ventricle was found to be enormously dilated. The depression above mentioned was now seen to be due to the roof of the left ventricle falling inwards. Comparing the two hemispheres, it was found that the right measured 7 inches in length and $2\frac{1}{2}$ inches in breadth, but the left only $6\frac{1}{4}$ inches longitudinally and $2\frac{1}{4}$ inches transversely. The right hemisphere weighed $15\frac{1}{4}$ ounces, the left only $5\frac{3}{4}$ ounces. The convolutions on the right side were exceedingly simple, while those on the left side were smaller than usual for a child of her age. The white matter of the anterior and middle lobes on this side was reduced to a mere line. The left lobe of the cerebellum was the larger of the two. The left side of the cranium was much thicker than the right, and the internal surface presented marked differences on the two sides.

From this case, as well as those related by van der Kolk, Dr. Taylor, and others, it appears that the usual appearances found post-mortem are :—Thickness of the cranium, opacity and thickness of the membranes, effusion of serum into the subarachnoid space, sometimes into the ventricles, and atrophy of one hemisphere, including the corpus striatum, optic thalamus, and pons of the affected side. Since the fibres of the superior peduncles of the cerebellum undergo a complete decussation beneath the upper pair of

the corpora quadrigemina, and those of the middle peduncles decussate in the pons varolii, while the fibres of the pyramids of the medulla have their well-known crossed direction, there is atrophy of the cerebellum and the spinal cord on the opposite side.

The course of events seems to be this: First, there is, as the result of chronic inflammation of the meninges, or of the cortical substance, wasting of one side of the brain. To compensate for this the skull becomes thickened, and serum is poured out beneath the arachnoid and into the ventricles. Then, since those parts of the brain which are connected with motion are wasted, the limbs whose action is governed by them are imperfectly nourished, and become atrophied.

Time will not allow me to enter more fully into the subject, or to describe other diseases of the brain which are met with in imbeciles, but I trust the remarks I have made will have been interesting to this branch of the Association.

Note on Shrinkage of a Hemisphere and subsequent Pachymeningitis. By J. W. Plaxton, M.R.C.S., Medical Superintendent of the Jamaica Lunatic Asylum.*

My case is briefly this:—A man, aged 27, an African negro from the Congo, was admitted into the Jamaica Lunatic Asylum, May 8, 1874. His was a case of chronic mania with delusions of grandeur. Much or little demented I cannot say. His English was always limited, but I never knew him until a year before his death; then, confined to bed, he made his wants known well enough; was bright-faced and cleanly. This, as will be seen, was long after the gross brain lesion which brings him within my communication.

In October, 1886, twelve years after his admission, he began to show signs of coarse cortical lesion of the right hemisphere, such as unilateral failure of muscular power, and convulsive movements of the affected side. The failure increased gradually, though the convulsions ceased after a time, and were not renewed. Three months after the onset contraction of the muscles of the extremities of the left side was well established. The contraction increased to the full extent, and was permanent. There never was at any time,

* Read at the Quarterly Meeting of the Association, held at Bethlem, Nov. 16, 1888.

so far as I can learn, any loss of consciousness. I can give no better history than this. He grew thin towards the end. He sank suddenly, and died May 17, 1888, at 4.30 a.m., one year and seven months from the insetting of the coarse brain-symptoms.

The post-mortem examination was made the day of his death, and seven and a half hours after he died.

The brain and cord alone were examined.

Skull cap natural except in the bregmatic region on the right side; here the inner table, instead of being smooth and dense, was coarsely porous and thickened.

The dura mater stripped very easily. The whole dura mater of the right side above the tentorium cerebelli was lined with thick, mostly gelatinous new formation, as usual thickest over the vault of the hemisphere. It would average one-fourth of an inch in thickness, in some places much more. The false membrane itself enclosed a large quantity of bloody serum, and between the false membrane and the visceral layer of the arachnoid was a large quantity of reddish serous fluid.

The right hemisphere was, by guess, not more than one half the bulk of the left, and was enclosed within its proper membranes, which were thick, tough, and opaque, especially over the frontal and parietal lobes. Beneath the membranes certain convolutions were yellow and shrunken, hard, and "shotty" to the feel. These convolutions were the second and third frontal, the two ascending gyri, and the whole of the parietal lobe; in fact, the whole of the nutrition area of the right middle cerebral artery. The right crus, right-half of the pons, and the right-half of the medulla oblongata were all smaller than the corresponding parts of the other side.

The arteries of the base of the brain were atheromatous, and the right middle cerebral artery with its branches was smaller than the left. The point of plugging was not observed.

The left hemisphere was remarkable in its contrast to the right, its membranes were thin, even if thicker than in a normal brain, as, indeed, they were. Its convolutions were fairly plump, the wasting certainly not great.

There was no trace of disease of the dura mater, no trace of pachymeningitis.

Such is my case. There can, I think, be no reasonable doubt that it is a case of shrinkage of hemisphere with subsequent (and consequent) pachymeningitis. My attention has been

drawn, since drawing up this case, to Huguenin's account in Ziemssen "of inflammation of the dura mater" (Vol. xii., p. 306). The author covers the whole ground. It is useless slaying the slain. The case remains interesting, I think, supporting, as it does, Huguenin's contention against the hitherto received explanation of pachymeningitic processes. The subsequent article by Dr. Wiglesworth in the "Journal of Mental Science," January, 1888, has advocated the same view. I think that this case will be accepted as a not unimportant piece of evidence to the truth of the contention that pachymeningitic membranes are, to borrow a phrase, "substitution products."

Case of Difficulty of Speech. By HARRINGTON SAINSBURY, M.D.

The following case may be of interest to the readers of the "Journal of Mental Science":—Mabel Tebbutt, aged 5½ years, was brought to the Royal Free Hospital for a difficulty of speech, which practically rendered her quite unintelligible to strangers. It will be easiest to set forth the nature of this difficulty by running through the alphabet, and putting against each letter the equivalent of her pronunciation. Each letter was first said to the child and then she repeated the sound as nearly as she could.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
sa	p	see	t	e	sa	see	sa	sow	sa	ta	sow	sa	sa	sow	p	two

R	S	T	U	V	W	X	Y	Z
sa	sa	t	soo	fee	tow-soo	sa	wow	sa

In these equivalents the "a" is to be pronounced as in ma, the "ow" as in sow, the animal. It will be observed that of the whole alphabet the only letters she could give quite correctly were C, P, T; that B and D were respectively rendered P and T, and that the letter V underwent a corresponding change, and was rendered "fee." For the remaining letters there was apparently no relation between the normal and abnormal sounds—the pronunciation of Q being perhaps an exception. It is remarkable that the S sound is so frequently repeated.

The numerals were given as follows:—

one	two	three	four	five	six	seven	eight	nine	ten
see	two	fee	for	fow	see	saë	sa	now	ta

twenty	thirty	fourty	fifty	sixty	seventy	eighty	ninety	one hundred
taë	fit-y	forty	fit-y	sit-y	saëty	saty	nowty	see-saë

The word seven was rendered in two syllables, "saë," pronounced like the French "haïr." I think it probable that the word twenty could have been given "taty" if the child had been made to copy it more carefully. She was only asked the word once. I shall not attempt to criticize further these sound-reproductions, but will leave this part to those who are more familiar with the science of word-sounds. I may suggest, however, that the speech error may be of the nature of a simple defect, *i.e.*, fault by arrest, the centres in the cortex having failed to develop; or it may be of the nature of an actual perversion. In either case there may be simply an inability to reproduce the sound given, the child being conscious of the imperfection of her own copy, or there may be a condition analogous to colour-blindness, a failure to recognize sound differences. Cases of aphasia, the result of disease, furnish us with instances of both of these kinds of error in speech.

The child's condition and past history did not throw much light on the case. She was a healthy child, well grown, and bright-looking. She was able to make those understand her perfectly who were accustomed to her sounds and ways. She was useful in the house, could be sent on errands (in the house), would amuse herself with her doll and was in every way a good child.

Her past history was to the same effect; she had never been mischievous or fond of playing with the fire, and had always been cleanly in her habits.

She had been a full time child, and there had been no difficulty in the delivery. During teething she had suffered from convulsions, but there was no history that these had been of unusual severity. Her aunt's impression was that they had been just "like those of other children."

There were two other children, one older, one younger; these were quite well and intelligent, and had no difficulty with their speech. There was no history of such difficulty in the family, nor was there in the family any record of epilepsy, insanity, or imbecility.

When examined the child was found able to do anything she was bidden to do, and she could count up to ten. There was no deafness. Her condition seemed one of backwardness rather than of deficiency, and this backwardness was apparently fully accounted for by neglect of instruction. Her

aunt stated that owing to her unintelligible speech she was left very much to herself at school.

On the physical side there was noted a prow-shaped forehead. There was no deformity of the mouth; the palate was not unduly arched. The limbs were well-shaped, and with one exception there was complete symmetry; *the exception was the right little toe—it was double.*

It is of interest to observe that this malformation was on the side of the body served by the speech hemisphere. The connection, of course, may be purely accidental.

May not this case be classed as one of aphasia?

Notes of a Case of Folie à Deux in Five Members of one Family. By OSCAR T. WOODS, M.D.Dub., Medical Superintendent of the Killarney Asylum.

The following case of "communicated insanity" exhibited all the symptoms of Folie à Deux as described by Dr. Hack Tuke in his paper read last year in Dublin,* and for many reasons is, I think, deserving of record.

Johanna D., aged 45, mother;
Julia D., aged 24, daughter;
Michael D., aged 22, son;
Mary D., aged 18, daughter;
Kate D., aged 15, daughter;

were admitted into the Killarney Asylum on January 30th, 1888, under the following circumstances:—

The information of the constabulary sergeant is as follows: "From information I received I proceeded to the house of Michael D. I saw the dead body of a boy lying in the yard in front of the door; it had no clothing on except a shirt. The nose had disappeared, the front of both cheeks had been removed by violence. When I came in front of the house I saw a number of the family grouped together. Michael, junior, called out to me not to come near the house, or that I would never forget it. The others then all repeated what he said. Michael, senior, had nothing on but his shirt, Mary and Julia their chemises only; the others very little more. I then with assistance arrested them. They were all evidently insane, jumping about and shouting in an excited way."

These patients were brought to the asylum together, where they were seen by two magistrates, who committed all except the father. He, although suffering from hallucinations, was quiet, and comprehended all that was said to him. He refused to tell

* At the B. M. Association Meeting in Dublin, held in August, 1887.

what he knew, and said, "My wife will tell you all. They are all more clever than I am, and say they have been to heaven, and I must believe them."

Family History.—Michael D., senior, has two brothers, Patrick and Dan. Their father and mother lived to be 90 and 70 years of age respectively, and were always healthy.

Patrick married a Kerry woman (no relation, whose family history was good). They had several children, nearly all of whom are deaf and dumb.

Dan married a first cousin, and all his children are grown up and healthy.

Michael married Johanna S., who had no brothers or sisters; and her family are supposed to be healthy, except one maternal uncle, who died insane. First cousin of Michael D. has recently committed suicide.

Their family is as follows:—

Michael D., father;
Johanna D., mother, in asylum.

Children:

Julia,	in asylum;	Patrick, epileptic idiot, murdered;
Michael,	,,	Denis (12), imbecile;
Mary,	,,	Dan,
Kate,	,,	Denis;

so that out of the whole family there are only the two youngest who have not been mentally affected.

On admission.—Their condition may shortly be described thus: The three daughters were in a very violent state of acute hysterical mania, flinging themselves about; could not comprehend anything said to them; pupils largely dilated; pulse quick. Mother and son very excited, but more collected, and able to comprehend what was said to them. All patients were much bruised about the body, Julia's face and left eye being greatly torn. Mother and son both fell on their knees and prayed to God and the Virgin Mary, and the former made the following statement:—"On Saturday night at cock-crow I took that fairy Patsy—he was not my son, he was a devil, a bad fairy, I could have no luck while he was in the house—carried him out of the house and threw him into the yard, and then got a hatchet and struck him three blows on the head. I then came back, and we all prayed and went to Heaven." All had the one dominant delusion that they had been to Heaven, each one describing minutely what she imagined she had seen.

None of the family complained of being ill up to evening of 28th save Julia, who had not been quite herself for about a week. The only other two facts obtainable were that the family ate heartily on Wednesday and Thursday of goat's meat, part of which I found in a tub in the house, which was stinking, green, and putrid; 2nd, that most of the members of the house had lost their

rest the previous week while sitting up minding a sow and young ones.

Result of post-mortem.—We found a bruise on the left shoulder, a fracture of the lower jaw on the right side, both cheek bones broken and the flesh over them lacerated; in fact, all the small bones of the face were broken. The lower jaw was also broken on the left side, the left temporal frontal and parietal bones were extensively fractured, and also the occipital bone; the brain and its covering was lacerated; the hands raised as if in a position of defence.

Progress of case.—*January* 31.—They all slept well. When visited, mother quiet, and answers questions collectedly; knows where she is; says she killed her own child; "Took Patsy out between the blankets at cock-crow with my little boy Michael; did it because he was a bad fairy, and not my son at all."

Julia's face very black and disfigured; she is quiet, but refuses to answer questions.

Mary very excited, swinging about and repeating over "Depart, ye devils. Thanks be to God, my name is in Heaven; I am a saint in Heaven, no devil can touch me now; you can touch my body but not my soul, it is in Heaven." Tongue clean, pupils natural.

Kate. "Jesus, Mary, Joseph, help me. Oh! Jesus, banish those devils. I will do all for them because of the Holy Cross, thou hast redeemed me."

Michael very excited and restless. Smashed a large pane of plate glass; will not answer questions.

February 1st.—Last night Mary very restless, kicking door. Julia sleepless to one o'clock. Johanna and Kate slept. Mary excited and rambling; will not answer questions. Julia and Kate quiet, but refuse to speak, only muttering to themselves at times. Johanna stupid, position fixed, mouth and eyes firmly closed; refuses to answer all questions, but takes her food well, and speaks occasionally to the nurse. Michael appears to remember all that was done and is very communicative. He says: "We wanted father to get up and pray with us, but he would not. He was too bad and would not come with us, he is now in hell for all eternity; we threw all his bedclothes out into the yard, and me and my sisters went to Heaven." He then described the appearance of the road to, and the gates of Heaven.

February 2nd.—All quieter, evidently improving, but Mrs. D. still refuses to speak. Mary and Kate, who have been most excited, much quieter.

February 3rd.—All slept well and are quiet to-day.

February 4th.—All improved. Michael quite collected. Says he first felt himself all right last night; gives a very fair account of everything, but rather anxious to conceal the worst features.

Says Julia was the first to show symptoms of anything wrong and to speak of Heaven; this was on Thursday night.

Mary fairly collected, remembers all that occurred; states "Heard my mother in the yard when she took Patsy out, 'It is time for me to kill you, you young devil; I wonder if I have killed you enough now.' I was not shocked when I heard my mother kill him, as I heard people say he was a fairy, and I believed them. I suppose it was not right to do so. I think I am right in my mind to-day."

Mrs. D. willing to talk, but pretends to forget everything. Says Patsy is alive, knows where she is, and is very collected; remembers everything *except* what took place on Saturday, Sunday, and Monday; evidently is not speaking the truth and knows everything, but as she now realizes her position, wishes to conceal the fact of her guilt.

February 14th.—During the last week mother and Michael have gone on very well, apparently sane, conversing rationally, the former, however, asserting she believes Patsy to be alive; the latter is willing to give an account of the fatal affair. When D., senior, was here to-day his wife inquired how Patsy was. I believe this was only because the nurse was present. Both sleep well. Mary and Kate convalescent.

February 26th.—Since the above date progress has continued uninterruptedly save in the case of Julia,* who has not improved much; she is, however, quieter and inclined to be more tidy in her habits. She was the first attacked, and I would be inclined to think was some days ill before noticed by the family.

No special medical treatment was found necessary. Aperient and tonic medicine with chloral as a night draught during the first week; plenty of nourishing food and out-door exercise was alone required.

Happily such cases as this have not often to be reported in this country. In foreign countries, however, they are not so uncommon; no doubt the hereditary taint, and the strong superstitious ideas instilled into their ignorant minds by the old country women, acting on people whose bodily health was somewhat undermined by bad food and loss of rest, had much to say to the cause of the attack.

The sudden and simultaneous onset of the attack, the similarity of the delusions and symptoms, the immediate committal of the murder, the quick recovery of those secondarily attacked, and last the family history are all interesting features of the case. With regard to the family history, it is curious to note that while Michael D. and his brother Dan both married strangers, almost every member

* Dec. 1st, Julia still an inmate of the asylum, daily becoming more demented.

of both families have been affected, the former mentally, the latter being deaf and dumb. Patrick, who married a first cousin, has had a number of healthy children, all now grown up.

Owing to the criminal charge hanging over these patients there was some difficulty in arranging for their discharge, which took place on July 7th.

A question arose during the preliminary investigation on which I would be glad to have your opinion—as to whether the medical officer of an asylum is right to divulge in a court of law statements made by a patient, either when that patient is labouring under delusions or convalescent. I think any conversation with an inmate of an asylum should be privileged, as it is held not with the object of obtaining information, but with a view to test the sanity and promote the recovery of the patient. If all conversations held with a lunatic could be extracted from a superintendent in a witness-box his influence over many of the patients would, I believe, be lost. I, at all events, refused at the preliminary inquiry to state communications made to me by the prisoners, and was not asked to do so at the assizes. The mother was found not guilty on the ground of insanity, and ordered to be detained in an asylum during the Lord Lieutenant's pleasure.

Case of Foreign Body in the Œsophagus. By E. Maziere Courtenay, M.B., Medical Superintendent Limerick District Asylum.

M. L., æt. 38, admitted into the Limerick Asylum on June 16th, 1886, from the Limerick Workhouse, where she had been since the previous November. During the whole of this time she is stated to have been in depressed spirits, to have had various delusions that "her head and chest were filled with vermin," that "she was rotten," and, according to the account of the ward mistress, she had made three distinct attempts to commit suicide by plunging her head in the water cistern. The medical certificate merely states that "she is violent," and "has attempted bodily harm."

On admission she was much depressed, but was able to answer questions sensibly, and to give a clear account of her past history. Suffered from a similar attack fifteen years ago, from which she recovered. Has been at service all her life, but two years ago had an illegitimate child, which threw her out of employment, after which she suffered much from want, and was at length obliged to seek the shelter of the workhouse.

She complained much of pain in the head, said her mouth was putrefied, and that her brains were oozing away.

Whilst in the asylum she was quiet and orderly, but was always looked on as of vindictive disposition, always ready to revenge herself on the other patients for any insult, real or supposed. She at the same time was most careful to look after her own personal comfort, refused to do any work or to exert herself in any way, constantly complained of her head and stomach, and was filled with all sorts of hypochondriacal delusions of her head and mouth being rotten and putrefied, of her stomach and liver being filled with lice. She, however, enjoyed good bodily health, took her food well, and slept well.

On my visit on the morning of January 17th, 1887, patient complained that, being annoyed at something the nurse had said to her, she had swallowed a chestnut, with the design of putting an end to her life, that the chestnut had stuck in her throat, and that she was unable to swallow any food.

At the time, as from a superficial examination I could see nothing the matter with her throat, I thought that her only object was to draw attention to herself and her own imaginary ailments. On the next day, however, the nurse reported that she had taken no food since the morning before. From my knowledge of the patient's disposition and temper, and her anxiety to draw attention to herself, I still thought that her story was a pure invention. This went on for three days, during which time she refused all nourishment except water. This she swallowed with apparently the greatest difficulty and pain, accompanied with the most elaborate muscular contortions and facial grimaces. External examination revealed nothing, but on attempting to pass a tube I found I could only get it as far as the entrance of the œsophagus, when it was stopped, apparently by some foreign body.

The patient was examined by a number of medical men, but it was found impossible to pass anything into the œsophagus except a No. 12 male catheter. Three suggestions were made as to the cause of the obstruction—(1st) A foreign body lodged in the œsophagus; (2nd) A malignant growth; (3rd) An abnormal power of contracting the œsophagus against the passage of an instrument. It was proposed to put the patient under chloroform so as to make a thorough internal and external examination of her throat. On the next day, however, the nurse reported that she had swallowed beef tea when no one was looking at her. On the day after she took some milk from the nurse, but with great apparent difficulty. After this she ate bread when she thought she was not noticed, and in another week was able to go to the dining-hall and take food, both solid and liquid. Her appetite returned, she gained flesh, and became stouter than she had been before. Her mental state continued in much the same state as when admitted. She was still morose and irritable if interfered with, constantly referred to her old delusions, seemed as a rule to

forget about her throat unless reminded of it, when she would complain that the chestnut was still there.

She continued in this condition for a whole year, up to January 20th, 1888, when the nurse reported to me that M. L. had again refused her food, and complained that she was unable to swallow. When seen she appeared very excited; kept constantly shouting, "It's there, it's there!" catching hold of her throat at the same time. The excitement shortly after passed away; she again began to swallow liquids, but with some apparent difficulty. Her bodily health, however, from this date rapidly gave way. She lost flesh, became very emaciated, signs of acute phthisis rapidly developed, and she died on March 22nd, 1888.

The post-mortem showed both lungs studded with miliary tubercle. On opening the throat and removing the trachea a hard substance could be felt lying behind the œsophagus, which proved to be a chestnut in a perfect state of preservation, unaffected by any form of decay or chemical decomposition, and appearing to have been only just swallowed. It had evidently ulcerated through the œsophagus at the junction with the pharynx, and was lying on the fifth and sixth cervical vertebræ, where it had made a pocket for itself. The vertebræ were denuded of periosteum, and their surfaces were rough and corroded.

This case may be of interest—

(1st) From the ease with which one may be deceived in a case of hypochondriacal insanity when an extraordinary accident takes place, the patient's complaints being generally looked on as delusions.

(2nd) From the history of the patient becoming fat, improving in health, and losing all difficulty of swallowing for a whole year with a foreign body resting at the top of the œsophagus.

(3rd) From the position in which the foreign body was found. It is difficult to understand how a smooth, round body like a chestnut could have been arrested and lodged in such a position.

(4th) From the state of preservation in which the nut was found. Although the vertebræ were much corroded, and had lost their periosteum, no sign of decay or chemical action could be seen on the shell of the chestnut, although it must have been exposed to the action of the saliva and the gastric fluids.

Recovery from Chronic Insanity—four cases—with the record of fourteen other cases in which recovery took place in over three years. By P. Pope, M.R.C.S., L.R.C.P., Clinical Assistant to the Birmingham Asylum.

The record of these cases would seem undoubtedly to show that recovery from chronic insanity, though rare, is not such an exceptional event as one is led to suppose. The publishing of Dr. Strahan's cases in the last number of the "Journal of Mental Science" has induced me to publish the following eighteen cases, in some of which recovery took place in over eight, nine, and ten years. This would surely explode the idea that recovery after two years is even exceptional; the above cases (with one exception) being a record of a period of only thirteen years.

The first case recorded (that of George M.) is interesting, apart from the length of time the patient was in the asylum (over nine years), with regard to the action of bromide of potassium upon the maniacal outbursts in an epileptic, especially when the fits had to a great extent ceased, the amount that may be given, and the beneficial effects of an uninterrupted course of treatment. The third case is interesting in the recovery taking place at the very commencement of the climacteric after puerperal mania (recovery in the first instance taking place after a severe bodily illness, the patient again becoming insane after childbirth).

Case I.—George M. Recovery after eleven years. Was admitted to this asylum in December, 1878. Married; æt. 40; no occupation. Certificate: "Wild look; excited manner; refusal to answer questions. Dangerous to others; has chased his niece with a knife."

On admission patient was very restless; expression vacant; mind much impaired.

For some months he was weak-minded and childish in behaviour. He was epileptic, and suffered a good deal from fits. These improved considerably under pot. brom., and he was allowed out on trial on May 10th, 1879.

He returned to the asylum on May 26th, having had nine fits since he had been at home (two weeks); he was very violent and unmanageable; the fits continued, and he was prescribed gr. xx doses of pot. brom. three times a day. He became quiet, and his manner became dull and bewildered, and his behaviour again childish.

Soon after this his manner entirely changed; he became at intervals very violent, the outbursts corresponding to and following the fits; at these times he took dram doses of pot. brom. three times

a day. After taking these doses for short periods his behaviour became quiet, when the bromide was discontinued.

Although there was no increase in the fits, the maniacal outbursts became much worse. A note made on September 30th, 1880, states that "the patient is going from bad to worse."

He remained in this condition for a year. On September 10th, 1881, he had no less then seven fits; his violence after the fits was at this time excessive; he used to break the windows and destroy the furniture. The bromide was again given in dram doses three times a day, and both the fits and periodical outbursts decreased.

The fits steadily improved. In March, 1882, he had only two fits—one on the 8th, the other on the 25th. (In this year the patient had eighty-five fits; sixty-six in 1883; fifty-two in 1884; and only thirty-one in 1885.)

The fits became less and less frequent, and the maniacal outbursts much improved; he relapsed, however, greatly in July, 1883, when the pot. brom. had been discontinued for some months. He was much more violent and excitable than usual, and his ideas were very exalted, the fits meantime steadily decreasing.

The bromide was again prescribed in dram doses three times a day, with the result that his condition slowly and steadily improved. A note made in May, 1885, describes him as quiet and industrious, with occasional outbursts.

The maniacal outbursts, however, continued at intervals until November, 1886, when he was put on dram doses of pot. brom. uninterruptedly. From this time his recovery commenced; the maniacal outbursts left him entirely; he was fit to be allowed out on trial on May 13th, 1887; he was discharged on July 1st, when the doses were reduced from 60 to 20 grains.

This he takes three times a day with three grains of ammon. carb. He presents himself from time to time at the asylum; is perfectly able to manage his affairs; is quiet and rational, free from fits, and his recovery appears to be permanent.

Whether if he discontinued the bromide he would have a return of the fits and relapse into his former condition I am not prepared to say.

Case II.—Wm. W. Recovery after eleven years. Was admitted March 2nd, 1864. Widower; æt. 51; labourer. Insane one week; cause, trouble (death of his wife). Certificate: "Incoherent; inability to distinguish persons. Has tried to injure others and to strangle himself."

On admission patient would not speak; he rolled on the floor groaning, and resisted anything being done for him; was very delusive; stated "that women were in a conspiracy to deceive virgins, his wife being one of them; that persons came in the night and moved his bed."

He was very excited at times, jumping up and throwing the bed clothes about; he remained restless and excited until July, when he

became much quieter. He was treated with æth., ammon., and liq. opii sed., and for his bowels, which were much confined, mist. rhei. co., calomel, and ol. crotonis at different times.

He was again very excited and violent on August 5th, and continued very violent at intervals until 1868.

In January, 1868, he made marked progress, and was employed about the ward ; he was taciturn at times, and had the delusion that his food was poisoned.

He remained fairly quiet and useful until May, 1869, when he became very violent, and was excited and troublesome for some days. From this date he made gradual and steady improvement, and was discharged cured on August 3rd, 1875.

Case III.—Mary P. Recovery after seven years. Was admitted June 7th, 1879. Married ; æt. 33. Insane two months ; cause, husband's ill-usage. Had been confined seven weeks previously with ninth child.

Had been previously in the asylum one year, from 1876 to 1877. She was then suckling a child thirteen months old. On her previous admission she had a bewildered expression. Pulse 120 ; breasts full of milk ; bubo in left groin, and gonorrhœa (from husband). She had erotic tendencies.

She had rheumatic fever on June 7th, 1877, and as her bodily health was regained she became rational in manner and conversation. Discharged August 8th, 1877.

On her readmission patient was raving and swearing ; pupils unequal ; breasts full of milk; she was very violent.

This state continued for one month, when she had calm intervals, alternating with periods of excitement, the former being of very short duration for nine months, when her excited periods became less and at longer intervals.

She was very erotic in her quiet intervals, when she seemed to cultivate the softer passions, giving the rein to her erotic tendencies.

The patient menstruated very irregularly.

Her mental improvement continued, her maniacal outbursts became rarer, and she was discharged cured on April 19th, 1886, in good health and spirits.

The patient is now in service, and her recovery seems to be undoubtedly permanent.

Case IV.—Unias P. Recovery after seven and a half years. Admitted March 8th, 1876. Married ; æt. 35. Insane two months ; cause, jealousy ; predisposing cause, heredity. Medical certificate : "Delusions that people are alive who are dead, and of her husband not being hers ; that she has robbed the church, etc."

On admission a short, dark, thin woman of bilious temperament ; has a wild and restless expression ; pupils normal ; pulse 120 ; feeble

laugh ; a good deal of thick yellow sputa. Respiratory sounds weak, especially on right side ; no marked dulness.

Patient was very melancholic ; she refused her food, was very dull and quiet ; obstinate, and talked incoherently. This condition lasted until March 23rd, when she took some food, having been fed with the stomach pump until this date.

On taking her food her bodily health at once improved, but mentally she continued very melancholic, discontented, and dull in manner.

She had the delusion which persisted that the Medical Superintendent was her father.

She remained in this condition until May, when she was persuaded to employ herself by sewing.

She improved; but in April, 1878, relapsed into her former condition ; she refused to work ; spoke in a feeble and plaintive manner, and was incoherent. During this time she took her food, and was in fair health bodily.

She remained a quiet, melancholic, weak-minded patient until January, 1883, when she was induced to occupy herself again, and her mental condition at once improved.

The improvement continued uninterruptedly, and she was discharged cured in February, 1884.

Besides these cases I find notes of fourteen others, in a period of thirteen years alone, in which recovery took place after three years of treatment in this asylum, viz. :—One male over eight years, one over five, two over three, one female over seven years, two over five years, three over four years, and four over three years.

Confessions of a Young Lady Laudanum-Drinker. Dose, Four Ounces Daily, in Two-ounce Doses.

The following letter addressed to a distinguished member of the Association has been placed in our hands, and we think that we shall be doing good service by printing it in the Journal. The writer's mother brought her to Dr. ——, and consulted him as to what course he would advise in her case. He counselled immediate and absolute stoppage of laudanum and residence for a time in an asylum, where alone perfect surveillance could be secured. After leaving him and thinking over his advice, she was unable to bring herself to adopt it. She decided, however, to leave home with her daughter and devote herself entirely to her recovery, never leaving her, and preventing her obtaining any opium.

The result is told in the patient's graphic narrative. She has now been well for more than a year.—[Eds. J. M. S.]:—

Dear Sir,—

Perhaps you may remember a lady calling on you with her daughter about the middle of August, to ask you if there was any way of curing the habit of taking opium, which the girl had contracted. I, who write, am that same girl, and think you may perhaps be interested to hear how I got on. It is hateful to me to think of that horrible time, and one of my chief reasons for writing to you is to beg you to try and make known, by every means in your power, what a terrible thing opium-eating is. If people only knew of the consequences sure to follow on such a habit, of its insidiousness, and the difficulty of leaving it off, surely they would never touch it. Perhaps it is rather soon for me to imagine myself cured, but I do not think I can ever feel more horrified about it than I do now. There was no excuse for me taking it, brought up by such a mother, and with such a constant example of unselfishness before me in the rest of the family. All my tastes and fancies were gratified; as mother says, when I take a whim into my head, the whole house is turned upside down. When I came home from school I insisted on practising seven hours a day, and the family put up with it, though it was a great infliction to them. It would have been better for me had they not done so, for I was naturally so tired-out at night that I could not sleep, and, knowing that sleep would come easily with a little laudanum, it was difficult to resist taking it. Of course, it didn't become habitual all at once; the first time I got it was at school, after a concert, when its effects were so soothing, that it became quite usual for me to get it, mixed up with quinine, which I was forced to take, though there was not the slightest necessity for it, as nobody could be stronger than I am. Thank goodness, we have all inherited splendid constitutions, and would almost think it a disgrace to the family to have anything the matter with us. I'm quite sure I would never have had neuralgia, if it had not been for stewing up for exams. Mother was always writing to tell me not to do them, but I did not feel it my duty to obey her on that point, as what does one go to school for if not to learn; and to own one's self beaten by a headache would surely show a very weak mind. I'm just mad at myself for having given in to such a fearful habit as opium-eating. None but those who have as completely succumbed to it as I did, could guess the mischief it would do. Even you, with an experience which must be extremely varied, being as you are, in such a good place for studying people's brains, (or rather their want of them) cannot know the amount of harm it did to me morally, though I must say you did seem to have a pretty fair idea of it. It got me into such a state of indifference, that I no longer took the least interest in anything, and did nothing all day but loll on the sofa reading novels, falling

asleep every now and then, and drinking tea. Occasionally I would take a walk or drive, but not often. Even my music I no longer took much interest in, and would play only when the mood seized me, but felt it too much of a bother to practise. I would get up about ten in the morning, and make a pretence of sewing; a pretty pretence, it took me four months to knit a stocking. Worse than all, I got so deceitful, that no one could tell when I was speaking the truth. It was only this last year it was discovered; those living in the house with you are not so apt to notice things, and it was my married sisters who first began to wonder what had come over me. They said I always seemed to be in a half dazed state, and not to know what I was doing. However they all put it down to music. Mother had let me go to all the Orchestral Concerts in the winter, and they thought it had been too much for me. By that time it was a matter of supreme indifference to me what they thought, and even when it was found out, I had become so callous that I didn't feel the least shame. Even mother's grief did not affect me, I only felt irritated at her; this is an awful confession to have to make, but it is better to tell the whole truth when you once begin, and it might be some guide to you in dealing with others. If you know of anyone indulging in such a habit, especially girls, just tell them what they will come to. Of course its effects differ according to one's nature, and it's to be hoped few get so morally degraded as I did. This much is certain, few would have the constitution to stand it as I did, and even I was beginning to be the worse for it. For one thing, my memory was getting dreadful; often, in talking to people I knew intimately, I would forget their names, and make other absurd mistakes of a similar kind. As my elder sister was from home, I took a turn of being housekeeper. Mother thinks every girl should know how to manage a house, and she lets each of us do it in our own way, without interfering. Her patience was sorely tried with my way of doing it, as you may imagine, I was constantly losing the keys, or forgetting where I had left them, I forgot to put sugar in puddings, left things to burn, and a hundred other things of the same kind.

No one need think they will escape without punishment in some form or other. Unfortunately those who are strong can go on for a long time with impunity. But sooner or later retribution is sure to follow, and as I don't believe anyone's friends would put up with them as mine did with me, there would be nothing for it but to either voluntarily go where you suggested I should, or, if their reason was gone (which you also politely suggested with regard to me) they would be sent. I must say you have a pretty plain way of putting things. It is rather startling to a young lady to be told that she'll have to pay a six months' visit to a lunatic asylum, even when such varied attractions as "needlework, drawing and walking," are held out. However, perhaps the thought of living in such a palatial residence might reconcile some people to it. All

the same, it would be a pity to make the place too comfortable, people might miss it when they got out. Those chairs in your "question-room" were especially comfortable; the charm of the conversation that goes on is sustaining enough without that, and I do hope others have not the same difficulty in tearing themselves away that I had. Well, I didn't mean to go on like that, but my mood has changed very often since I began this letter, and I've made up my mind to put down just what I feel. Some of the horrid things you said are running in my mind, though I was so indifferent at the time, you might have said a good deal more without making any impression on me; even when you spoke about breaking mother's heart I didn't care. But I do now, and think you needn't have said some of the things to mother that you did when I was out of the room. Mother says doctors have a right to say everything, and I suppose people in your profession get hardened. There's just one thing I would like to know, and that is—whether you could tell that I had not left off laudanum that day we called. Surely you must know the state one gets into when suddenly deprived of it; they could no more sit up and speak as I did than fly. By that time I had brought myself down to a quarter of an ounce a day, and as you had put mother on her guard, I had no means of getting any more, (I hate having to own that I tried to do so) so the day after we saw you was the last I had any. Then began a time I shudder to look back upon, I don't like owning to bodily suffering, but will not deny that I suffered then. I wonder if leaving off opium has the same effect on everyone! My principal feeling was one of awful weariness and numbness at the end of my back; it kept me tossing about all day and night long. It was impossible to lie in one position for more than a minute, and of course sleep was out of the question. I was so irritable that no one cared to come near me; mother slept on the sofa in my room, and I nearly kicked her once for suggesting that I should say hymns over to myself, to try and make me go to sleep. Hymns of a very different sort were in my mind, I was once or twice very nearly strangling myself, and I am ashamed to say that the only thing that kept me from doing so was the thought that I would be able to get laudanum somehow. Oh, I did feel miserable! Poor mother had a hard time of it, she said she never had such a heart-rending time in all her life; any time any of us were ill before there was always some remedy, but this time there was none, there was nothing for it but to bear it. Two or three times she was sorely tempted to give it to me, she got afraid I was going to have brain-fever, or something of the sort with so much tossing-about, and no sleep. I used to get up in the morning and try to go about, but never got further than the sofa, where the same thing was repeated, tossing and moving about. As for sitting-up that was out of the question; eating was equally so, but I was well deluged with beef-tea and coffee, so much so, that I can never touch the latter, the very smell of it makes me quite sick, it

brings back so vividly that hateful time. After a little more than a week of that I got better, and was able to lie quieter; but that stage was about as bad as the other. I was conscious of feeling nothing but the mere sense of being alive, and if the house had been burning, would have thought it too much of an effort to rise. I tried reading, but found that the sense of the words was a trouble to take in. However, that didn't last for many days, and the next feeling was one of longing to get away somewhere or anywhere, even a lunatic asylum, anything for a change. We went to —— for a few weeks, and hadn't been there three days before I began to get so hungry, there was no satisfying me. I used to eat all day long, but never once felt satisfied. This is rather an unromantic confession for a young lady to make, but I suppose it was natural after eating so little for a fortnight. In spite of that my back still continued to trouble me; walking for more than a quarter of an hour at a time was very fatiguing, and I considered myself well-off with four hours of sleep. (Perhaps you think I did very well with that, but our family is one which requires a great deal of sleep; when the children have holidays their one thought seems to be how much sleep they can get, sleeping round the clock being a common thing to them, though they are all active and noisy enough when up.) However, I gradually got over that, and now am perfectly well, with the exception of my back, which has that nasty aching feeling now and then. Our medical man, who is a bright specimen of the country doctor, said "it might be anything," and when asked to explain what that meant said "perhaps her corsets are too tight." This was indeed a bright idea as I don't happen to wear corsets at all. Those country doctors are fit for nothing but measles and teething. What I think so very queer when I was taking laudanum is that though my memory was going for other things, it was as good as ever for music; I could pick up by ear and play off even better than before. I often think had that faculty gone it would have alarmed me so much that perhaps I would have been able to stop my evil habits, but it's unlikely. Oh, dear, surely I shall never touch opium again! Besides the remembrance of what I endured in giving it up, there is my gratitude to all the family, especially my dear mother, for their extreme kindness to me when little better than a brute. Here I must state that I think you are right about a lunatic asylum being the only place for one to be cured of opium-eating. In my own case I can truly state that I could easily have procured it loads of times if I had wished, for though mother watched me very strictly at first, she soon relaxed, and if I had not by that time possessed the wish to be cured, I should probably be as bad as ever now. However, my parents very firmly told me that this was my last chance, that they would not stand any more of it, and that had it been any of the others they would have been sent away at once, but as they considered themselves to blame in having over-indulged me, they were willing to give me another trial, and try what a

different system would do. This different system began by being very strict; only two hours a day practising, no French novels, tea only three times a day, and not to be allowed out at night this winter. As to the other arrangements, they also soon fell through; after having let a girl have pretty much her own way for nearly twenty-two years, it is rather too much to expect her to give up all at once so much that she has been accustomed to. However, I tried my best to meet their wishes, with this result that they now trust me fully, and as a proof of this they have allowed me to come into —— to a dance and I fancy I hear you saying "it may be kindness, but it's mistaken kindness." You will also say I am not yet in a fit state to resist temptation. That may be true, but I only know I would consider myself worse than the lowest brute were I to take advantage of their kindness. What mother has done for me is incredible; I don't believe there's a woman like her in the world. How she can have a daughter like myself I can't understand. To think that for over three years I have gone on deceiving such a mother; if I were of a morbid nature I should die of remorse. Oh, why do you doctors not try prevention as well as cure? You have it in your power to warn those who take laudanum now and then for toothache or a headache, what an insidious thing it is, and how easily they may become the victims of it. I began that way, and see what it came to. Even now I often wonder if I've quite got over its effects. Does anyone who has gone up to three or four ounces a day, and is suddenly deprived of it, live to tell the tale? I can hardly believe it. My own sufferings were bad enough, and I had got down to a quarter of an ounce. I'll end this by alluding again to the object of my writing, namely, the prevention of people getting into such a state as I was: if they were to know the state of moral idiocy to which they would in the end be brought, would they ever allow themselves to once begin the habit? They need not say to themselves "Oh, we can stop it when we like;" opium takes away their power to do that. There can't be a more determined person than I am naturally, and what good did that do me! I determined a hundred times to stop it, but never succeeded, and at last I got that I didn't care a rap what became of me, all the reasoning and affection expended on me, being a mere waste of time and love. You doctors know all the harm those drugs do, as well as the "victims" of them, and yet you do precious little to prevent it. If that subject were to be taken up instead of some so often spoken of in the health-lectures which are now given, it might do some practical good. Well, I wonder at myself being able to write such a long letter on a subject which is so repugnant to me that I try never even to think of it. I can hardly finish up in my usual style which is "hoping to see you soon again;" because I certainly don't hope so, and if I ever do have the pleasure of seeing you again, let us hope it will be under very different circumstances.

OCCASIONAL NOTES OF THE QUARTER.

Proposed Provincial Meetings of the Association.

At the last Council of the Association, the propriety of holding an occasional quarterly meeting in the provinces was discussed, and a strong feeling in favour of making the experiment at an early date was manifested. It was proposed that such a meeting should be held in the spring, and in Yorkshire, probably in the city of York. We believe that the expression of sentiment which has been elicited from members of the Association since the meeting of the Council has distinctly favoured this proposal. The capital of Yorkshire is readily accessible to members residing in the north of England and Scotland, and it is the nucleus of a large number of institutions for the insane, one of which possesses some claim, perhaps, from having been, in the words of a high authority, "the cradle of the humane treatment of the insane in this country."

Another reason which may be advanced in favour of this locality is the certainty that among the Medical Officers of its asylums, there will be no difficulty in obtaining the services of an efficient man to make all the necessary arrangements and to assist the General Secretary during the proceedings of the meeting.

It should be borne in mind that when the Association was founded, it was hoped and expected that the annual meetings would be held in different places, one of the original resolutions being, "That to effect the great objects of the Association, visits be made annually to some one or more of the hospitals for the insane in the United Kingdom." So strong a hold, however, had the custom of meeting in London taken on the minds of the members, that when the proposal was brought forward at the annual meeting in 1886, that the meeting of the following year should be held in the Provinces, a majority decided against the proposition. It may not be uninstructive or uninteresting to cite the report of the discussion which took place on the question on that occasion.

The President said that Dr. Urquhart was taking it for granted that the meeting would be held in London.

Dr. Hack Tuke suggested that the views of the President elect as to the time and place of meeting next year should be solicited.

Dr. Needham said that, as far as he was concerned, the matter was entirely in the hands of the members of the Association.

Dr. Tuke said that in that case, and subject entirely to Dr. Needham's feeling in the matter, he would propose that the next annual meeting should be held at Gloucester. It would be very interesting to meet where Dr. Needham carried on his asylum work, and it might also be remembered that the proposal to form this Association originally sprang from Gloucester in 1840, when Dr. Hitch was Superintendent of the County Asylum.

Dr. Whitcombe said that he was sure provincial members would be much pleased if the annual meeting were held in some other city or town than London. He should be very glad if Birmingham were selected.

Dr. Deas thought the Association would gain by meeting, as on the present occasion, on the day before the meeting of the British Medical Association, and at the same place.

Dr. Rayner referred to the 4th Section of the Rules, and said that of course any proposition in regard to the day of meeting would be taken into consideration by the Council.

Dr. Clouston said it seemed to him that every practical consideration went in the direction of meeting in London or Edinburgh. He, for one, would be most happy to go to Gloucester; but they ought to carefully consider before going to a provincial centre. Old members years ago used to say that in provincial centres the meetings became slower, and the vitality of the Association suffered.

Dr. Deas said that, on the contrary, one of the very best annual meetings was held at York, and a most successful one was held at Glasgow.

Dr. Nicholson remarked that the meeting at York was in connection with that of the British Medical Association at Leeds. It would be well to select some place which would attract members who had not previously been present, otherwise their object in going to a provincial town failed.

Dr. Deas said he was ready to propose that if, as was probable, the meeting of the British Medical Association were next year held at Leeds, the Medico-Psychological Association should meet there too. They would probably thus gain the attendance of many members who could not come to the metropolis. If the British Medical Association should not meet at Leeds, then it might be left to the discretion of the Council.

Dr. Needham said that although he had no definite choice between Gloucester and London, he should have a distinct objection to another provincial town being substituted for Gloucester.

Dr. Hayes Newington urged that the convenience of the President elect (Dr. Needham) ought to be consulted.

Dr. Hack Tuke's proposal that the next annual meeting should be held at Gloucester having been duly seconded,

Dr. Jepson moved an amendment, which was seconded, "That the next annual meeting be held in London."

The amendment having been put to the vote, there appeared: For the amendment, 11; against the amendment, 8. The original motion was then put to the vote and rejected, there being 8 votes in its favour and 11 against it. It was therefore agreed that the next annual meeting should be held in London.

If the desire to visit the Metropolis and other reasons induce members to prefer the annual meeting being held in London, a legitimate argument may be used in favour of an occasional quarterly meeting being appointed in the Provinces, thus recognizing and fulfilling the intention of the founders of the Association, that it should be a peripatetic body visiting the principal asylums of the insane in the various counties of Great Britain and Ireland.

We are glad to observe that, at the Irish Meeting of the Association, held in Dublin, November 29th, 1888, the propriety of holding one of the quarterly meetings in the course of a year in one of the district asylums was discussed, and it was resolved:—

"That at least one in every year of the ordinary Quarterly Meetings of the Irish branch of the Medico-Psychological Association be held at some asylum in Ireland, the name of which shall be decided at the previous Quarterly Meeting."

We have no doubt of the wisdom of this decision, and believe that it will greatly tend to increase the vitality and utility of the Association in Ireland.

The Washington Congress.

We congratulate Dr. John B. Hamilton, the editor of the "Transactions of the Congress held at Washington in the Autumn of 1887," upon the completion of this laborious work. It bears evidence of great care, and, when we consider the illegible writing which some authors regard as a mark of genius to indulge in, and the impossibility in many instances of submitting "proofs for corrections to authors, scattered as they were throughout the world," it would be surprising if no errors had been made. For these it is probable that the writers have only themselves to thank.

The report of the Psychology Section commences with the address of the President, Dr. Judson B. Andrews, on "The Distribution and Care of the Insane in the United States," a practical paper which will well repay perusal. A few paragraphs are devoted to the subject of non-restraint. It is observed that "the position of the profession in America, as I interpret it, is, that the employment of some form of mechanical restraint in certain cases is legitimate, and its members are unwilling to deprive themselves of its advantages, when in their deliberate judgment it is necessary or preferable to other modes of treatment in the individual case. While it is not ruled out by the tyranny of public or official opinion, which may overcome the judgment of the physician who is responsible for the proper care of the patient, it is only prescribed like any other medical or moral treatment."

The same subjects were treated, by a pure coincidence, by Dr. Tuke in his paper entitled "On the various modes of providing for the insane and idiots in the United States and Great Britain, and on the *rapprochement* between American and British Alienists in regard to the employment of mechanical restraint." The results arrived at have already been given in this Journal. In his observations on non-restraint, the writer rejoices to find that "the experience of superintendents of asylums in the United States increasingly favours the treatment of the insane without resort to the old-fashioned methods of coercion." In regard to Great Britain, he believes that "while the old mode of restraint is dead and buried beyond resuscitation, there is far less disposition to sit in judgment upon those, whether in Britain or America, who honestly believe that as a last resort, use may be made of some form of mechanical restraint."

Hence he concludes that "to-day it is much easier for the two countries to understand their apparent differences, and to 'take sweet counsel together,' as in truth it is but fitting that the mother and her illustrious child should, and as I trust will do, at this Congress."

In the discussion which followed, Dr. Savage observed: "If a man be properly trained to supervise patients and attendants, it is for him to judge and act according to his deliberate judgment—not in the hasty way that within a month I have heard a doctor say he would act—'that rather

than restrain a man who threatened to tear out his eyes, he would prefer that the man should succeed in his purpose.' The sooner such an idea is destroyed as that, the better."

It is impossible to present an analysis of the many interesting and valuable papers which were read before this Section followed by discussion. Our present object is to express our appreciation of the labour which must have been taken, both by those who carried out the programme, and those who made the Section a success by their contributions.

PART II.—REVIEWS.

Forty-Second Report of the Commissioners in Lunacy. 18th July, 1888.

In their Reports for 1886 and 1887 the Commissioners were able, for the first time, to draw attention to a distinct break in the gradually-advancing annual increase in the number of persons of unsound mind and their ratio to the population.

In the Report before us they are no longer able to make this satisfactory statement. While the average annual increase of the previous ten years was 1,425, that of this year has been 1,752, the total number of insane persons registered in the department on the 1st January, 1888, being 82,643, who were distributed as shown in the table on next page.

The ratio of insane persons to population, which declined in the past two years, has again begun to rise, but the increase has been almost entirely among the pauper patients, who have accumulated about four times as rapidly as those of the private class.

The Commissioners attribute this accumulation in great measure to a lower recovery and death-rate. They consider that upwards of 600 out of the total increase of 1,752 may thus be accounted for. Whatever the explanation, there is now in this country one person of unsound mind in every 346 of the population; but there is nothing to show that there is any disproportion between the increase in occurring

Summary of Insane Patients, 1st January, 1888.

Where maintained on 1st January, 1888.	Private.			Pauper.			Criminal.			Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
In County and Borough Asylums ...	363	440	803	22,236	27,022	49,258	98	21	119	22,697	27,483	50,180
In Registered Hospitals	1,715	1,551	3,266	99	60	159	1	—	1	1,815	1,611	3,426
In Licensed Houses:—												
Metropolitan	841	761	1,602	354	511	865	—	—	—	1,195	1,272	2,467
Provincial	609	796	1,405	214	212	426	5	—	5	828	1,008	1,836
In Naval and Military Hospitals, and Royal India Asylum	262	21	283	—	—	—	—	—	—	262	21	283
In Criminal Lunatic Asylum (Broadmoor)	—	—	—	—	1	1	406	146	552	406	147	553
In Workhouses:—												
Ordinary Workhouses	—	—	—	5,270	6,831	12,101	—	—	—	5,270	6,831	12,101
Metropolitan District Asylums ...	—	—	—	2,601	2,900	5,501	—	—	—	2,601	2,900	5,501
Private Single Patients	184	252	436	—	—	—	—	—	—	184	252	436
Out-door Paupers	—	—	—	2,343	3,517	5,860	—	—	—	2,343	3,517	5,860
Total	3,974	3,821	7,795	33,117	41,054	74,171	510	167	677	37,601	45,042	82,643

cases of insanity and in that of the population. The following table is full of interest in this connection :—

TABLE.—Showing the Ratio (per 10,000) of the number of Patients Admitted into County and Borough Asylums, Registered Hospitals, Naval and Military Hospitals, State Asylums, and Licensed Houses, and into Single Charge (excluding transfers and admissions into Idiot Asylums), to the Number of the whole Population in England and Wales, for each of the Years 1869 to 1887 inclusive.

YEAR.	Ratio [per 10,000] of Admissions to Population.		
	Males.	Females.	Total.
1869	4·88	4·55	4·71
1870	4·60	4·48	4·54
1871	4·78	4·46	4·61
1872	4·67	4·51	4·59
1873	4·86	4·72	4·78
1874	5·16	4·88	5·02
1875	5·30	5·04	5·17
1876	5·36	5·18	5·27
1877	5·42	5·08	5·25
1878	5·46	5·20	5·33
1879	5·13	5·18	5·16
1880	5·08	5·20	5·15
1881	5·24	5·12	5·18
1882	5·19	5·12	5·15
1883	5·38	5·43	5·41
1884	5·33	5·21	5·27
1885	4·80	4·91	4·85
1886	4·90	4·83	4·87
1887	5·11	5·01	5·06

From this table it will be seen that, omitting transfers and the admissions into Idiot Asylums, there has been no appreciable increase in the ratio to population of admissions into all classes of asylums and to single care since 1875, and that the ratio for the year under review is lower than it was 12 years since.

It is a curious fact, of which there appears to be no obvious explanation, that from 1885 to 1888 the annual increase of males was considerably greater than that of females, while in the 25 years previously the proportion was, almost without exception, largely the other way.

The recovery rate of the year has not been so satisfactory as usual. With one exception it has been the lowest of the last ten years, and 1·48 per cent. below the average for those

years. There has also been a small decline in the death-rate.

The Commissioners notice the increased and increasing tendency of the various authorities to avail themselves of the asylums for the charge and care of their insane poor.

1st January.	Proportion [per cent.] to the Total Number.			1st January.	Proportion [per cent.] to the Total Number.		
	In Asylums, Hospitals, and Licensed Houses.	In Work-houses.	With Relatives or Others.		In Asylums, Hospitals, and Licensed Houses.	In Work-houses.	With Relatives or Others.
1859	56·18	25·36	18·46	1874	59·77	27·64	12·59
1860	56·43	25·22	18·35	1875	60·28	27·47	12·25
1861	56·85	25·15	18·00	1876	61·32	27·22	11·46
1862	58·18	24·38	17·44	1877	61·85	27·38	10·77
1863	57·98	24·78	17·24	1878	62·78	26·93	10·29
1864	58·07	25·05	16·88	1879	63·92	25·97	10·11
1865	58·89	24·59	16·52	1880	64·42	26·10	9·48
1866	59·79	24·23	15·98	1881	64·65	25·91	9·44
1867	60·18	24·22	15·60	1882	65·33	25·49	9·18
1868	60·89	23·86	15·25	1883	65·49	25·36	9·15
1869	61·12	23·93	14·95	1884	66·47	24·84	8·69
1870	61·68	23·60	14·72	1885	67·45	24·27	8·28
1871	60·98	24·34	14·68	1886	67·81	24·00	8·19
1872	59·25	26·35	14·40	1887	67·99	23·99	8·02
1873	59·51	27·12	13·37	1888	68·37	23·73	7·90

This, of course, implies a still further diminution in the number of patients boarded-out or living with relatives, and it also suggests, that not only is there a continuous lack of suitable workhouse accommodation for lunatics in most counties, but that its absence, and other mischievous results, are largely due to the four-shilling grant, which has so long been a stumbling-block in the way of any radical improvement in the pauper lunacy administration of this country. The table on the preceding page shows how increasingly the tendency to confine pauper patients of all types in asylums has grown in the last 30 years.

Asylums are, no doubt, generally the most suitable places for the treatment of patients suffering from acute insanity and from its more dangerous forms, but the experience of some English counties and of Scotland shows that a very considerable proportion of chronic and harmless patients may be suitably and more economically maintained either in the properly equipped wards of workhouses or in private dwellings under proper external supervision, to the relief of the ratepayers and with no disadvantage to the patients, and it is greatly to be desired that an effort at development in this direction may be put forth at an early period by the new county government.

The Commissioners devote considerable space in their interesting report to an examination of the figures which they have been enabled to collect, as showing the recovery rate of many years and its increase or otherwise within a recent period. They also refer to the question which has at times been more widely discussed—of the establishment of general hospitals for the special treatment of mental diseases, which they regard as worth a trial.

The results of their inquiries upon the subject of recoveries are given by them in the following words:—

Annual Average Proportion of Recorded Recoveries to Total Admissions.

1854-1858	37·8 per cent.
1859-1863	35·1 " "
1864-1868	33·65 " "
1869-1873	33·9 " "
1874-1878	34·37 " "
1879-1883	35·27 " "
And for the four years—	
1884-1887	35·3 " "

From the second series of returns, that is, where transfers, etc.,

are excluded from the admissions, we find the average annual proportion of recorded recoveries to total admissions, so corrected, to be for the five years:—

1869-1873 ...	... ...	38·3 per cent.
1874-1878 ...	... ...	39·38 „ „
1879-1883 ...	... ...	39·68 „ „
And for the four years—		
1884-1887 ...	... ...	40·51 „ „

From the foregoing comparison it would appear that the recovery rate fell between 1854 and 1868, but that since the latter year there has been a gradual, though slight improvement. Probably the improvement is somewhat greater than these figures show, as we think some allowance may fairly be made for the generally less favourable character of the cases of insanity which, as before-mentioned, have of late been brought under curative treatment. We are unable, however, to regard the results obtained as altogether satisfactory, and think that a larger percentage of cures should be possible.

The proportion per cent. of recoveries to admissions in 1887 was 38·54, and that of deaths to the average number resident 9·87.

Post-mortem examinations were held in 74·2 per cent. of the whole number of deaths. Twenty-four deaths were from suicide, but of these five occurred while the patients were out on leave.

The average weekly cost of maintenance in county and borough asylums in 1887 was as follows, in comparison with that for the previous year:—

	1887.		1886.	
	s.	d.	s.	d.
In county asylums	8	6⅞	8	7½
In borough asylums... ...	9	10¼	9	7½
In both taken together ..	8	9¾	8	9½

The Commissioners are able to give a generally good report of the condition in which all classes of asylums have been found on the occasions of their visits. In this creditable state the new local government authorities will take some of them over, and it is to be hoped that a no less favourable report will be able to be made at a future time. Their generally admirable condition has been largely due to the direct or indirect action of the magistrates, who have been well served by men whom they have trusted, and who, as themselves the largest ratepayers, have never lost sight of due economy, while they have remembered that the most

wasteful extravagance consists in a fictitious economy which sees no further than the saving of so much money.

It is greatly to be hoped that there will be no wide departure from the principles and practice of the past, which have borne the test of a long experience, and can point to not unsatisfactory results.

Thirtieth Annual Report of the General Board of Commissioners in Lunacy for Scotland. Edinburgh, 1888.

This Report may have more interest for English readers than usual in consequence of the recent meeting of the Medico-Psychological Association in Edinburgh, and the visitation of the Scotch Asylums by many of the members. The reviewer can speak in favourable terms of those institutions which it was his privilege to visit. It is not necessary to discuss in this place the merits of this or that idea, which from time to time is brought prominently into view and becomes known as the "Scotch system," although it by no means follows that all the Medical Superintendents of the institutions for the insane in that country adopt, or desire to be held responsible for what passes under that name. Extremes are proverbially apt to meet, and of this there occurred a singular illustration only a few years ago, when we felt it our duty to animadvert in strong terms upon the extraordinary advocacy of the systematic punishment of the insane by the superintendent of an asylum in Scotland, who was understood to advocate the open-door system and the like. Illogical principles, and still more illogical practices and doctrines which in religion would be thought to savour of fanaticism, may be regarded, however, when viewed philosophically, and with the charity that hopeth all things, as indications of a desire to grapple with the great difficulties which must ever beset the management of the insane and as the results of individual thought and action. The moment, however, individualism becomes stereotyped into a system which it is expected all shall adopt, a sort of inquisition is established which at once destroys all the characteristics of individualism. A "plan of campaign" is set on foot, and those alienists who have the courage to pursue the course which they believe to be best for the patient, are stigmatized as heterodox and are (metaphorically) committed to the flames. Unfortunately it is but too true that there is an

odium psychologicum as well as an *odium theologicum*, and the existence of a walled airing court, a locked or barred door, a strait-waistcoat, or even a strong dress may excite resentment and severe reflection in the breast of some psychological purist. That which strikes us as a symptom of good omen in the various departures from the beaten track which have marked the course of asylum management and non-asylum management of the insane in Scotland is the evidence which it affords of life. Of this no one will feel any doubt who has visited the excellent institutions of which the Blue Book under review is a report. In several of these, new buildings are in progress, and every effort has been made to introduce modern ideas and the improvements which the experience of other institutions in Great Britain has found to be desirable. Thus at Montrose Dr. Howden is erecting on the grounds of the asylum a carefully-designed hospital of which we have a description in this number of the Journal. At the Murray Royal Asylum, at Perth, Dr. Urquhart is engaged in making additions to the old building, planned with the greatest care and judgment. The comfort of married attendants at the Gartnavel Asylum, Glasgow, has been greatly increased by the building of a number of cottages for this class outside the asylum gates, at the instance of Dr. Yellowlees. Lastly, the plans for a building to accommodate 150 patients have been carefully studied and worked out by Dr. Clouston, who has visited the best institutions in Britain in order to incorporate all that is good and avoid all that is evil in existing asylums. Of this plan Dr. Clouston gave an elaborate description at the Psychology Section of the British Medical Association at Glasgow. When completed it ought to be a model for similar institutions.

Turning now to the movements of the insane in Scotch asylums during the last year as shown by the statistics prepared by the Lunacy Commissioners, we find that in the Royal and District Asylums there is an increase of 32 private patients and 82 pauper patients between January 1st, 1887, and January 1st, 1888. In private asylums there is an increase of 20 private patients. No pauper patient is provided for in this class of institutions. The same cannot be said in England. In Parochial Asylums there is an increase of 16 pauper patients. In lunatic wards of Poor Houses the increase is 22. In the lunatic department of Perth Prison there is a decrease of four. In training schools for imbeciles there is an increase of four in the

number of private inmates and a decrease of four paupers. In private dwellings there is an increase of two private patients, and, what is noteworthy, an increase of 130 who are paupers.

The whole increase of registered lunatics, exclusive of training schools and the Perth Prison, was, during the year of 1887, 304, there being an increase of 54 private and 250 pauper lunatics.

The table, which records the number of admissions into establishments after deducting transfers, shows (1) That the number of private patients admitted last year was 501, being 58 more than during the preceding year, and being 51 more than the average for the quinquennial 1880-84, and (2) That the number of pauper patients admitted was 1,997, being exactly the same as the number during the preceding year, and 63 less than the average for the above quinquennial.

The number of voluntary patients admitted into asylums in 1887 was 55, while the number resident on the 1st January, 1888, was 42. The Commissioners continued to regard the provision of the law which allows of the admission of patients without certificate as satisfactory. Precisely the same words are employed on this subject in the Reports of this and the previous year.

With regard to discharges of patients recovered, there were in 1887, 209 private cases so discharged. Of pauper patients, 876 recovered. The table below gives the recoveries per cent. of the admissions.

Classes of Establishments.	Recoveries per cent. of Admissions.			
	1880-84.	1885.	1886.	1887.
In Royal and District Asylums ...	41	37	42	40
„ Private Asylums	38	50	26	27
„ Parochial Asylums	42	41	44	39
„ Lunatic Wards of Poor Houses ...	6	7	6	6

Eighty-eight private patients died in asylums during 1887, and 596 pauper patients died. Subjoined is a table showing the rate for private and pauper patients in asylums

per cent. of the average number resident in the years 1885, 1886, and 1887, with the corresponding death-rates for the quinquenniad 1880-84 :—

Classes of Patients.	Death rates in all Classes of Establishments per cent. of the Number Resident.			
	1880-84.	1885.	1886.	1887.
Private Patients	7·0	8·0	6·7	5·8
Pauper Patients	8·1	8·1	7·9	8·1

In regard to escapes during 1887, the proportion per 1,000 of patients is below that which obtains for the last 10 years. In 1878 this proportion was 38 ; in 1887 it was 25.

In regard to accidents, it is noteworthy that one death was due to a fall during a struggle with an attendant who was trying to prevent the patient injuring himself. Of 45 accidents involving fractures or dislocations, 19 were due to falls, four to assaults made by fellow-patients, and 15 to struggling with fellow-patients or attendants.

There is a valuable table given at page 21 showing the progressive history of patients in establishments in the year 1868.

From this it appears that of 1,319 cases newly-admitted in that year one recovered in 1887, eight were removed unrecovered, 12 died, 11 were readmitted, and 178 remained at the end of the year. The recoveries during the first two years represent 36 per cent. of recoveries calculated on admissions and readmissions of the whole period, while the recoveries of the succeeding 18 years amount to 15 per cent. Many readmissions are drawn from recovered patients. As to deaths, it is stated that the annual death-rate among patients who have been less than four years inmates of asylums is from about 12 to 25 per cent. of the number resident; and that among those who have been more than four years and less than 20 years inmates of asylums the annual death rate is only an average of five per cent. of the number resident—a difference important as showing the necessity of taking into account the period of residence of the patients when calculating the death-rate of an asylum.

During the last 12 years of the 20 years (1868-87) the re-admissions have been about balanced by the discharge of patients, were they recovered or unrecovered.

The Reports of the Commissioners with regard to the Royal and District Asylums are extremely favourable. The Larbert Institution is stated to fully maintain its high character as a Training School.

As usual, ample statements are made in regard to the condition and location of patients in private dwellings. The number so provided for on the 1st January, 1888, was 2,402, of whom the vast majority (2,270) were pauper; the remainder (132) were non-pauper lunatics.

There are, of course, a large number of private patients residing in families who are not under the jurisdiction of the Commissioners. In Scotland a patient may be kept for profit without being under the authority of the Board, if a medical practitioner certifies that "he is afflicted with a malady which is not confirmed, and that it is expedient to place him for a temporary residence, not exceeding six months, in the house in which he is so kept." This is a much more sensible provision than the unwise restrictions of our postponed Lunacy Bill in regard to single patients. We are not aware that this liberal and judicious exception to the general rule has been definitely brought under the notice of those who have prepared the ill-advised English Bill.

The following passage refers to the desirableness of discharging patients as soon as they can be safely removed from asylum treatment :—

An instructive illustration and effect of an earnest effort to diminish the number of pauper lunatics accumulated in a District Asylum—the weeding out of such patients—is afforded in the recent history of the District Asylum for the counties of Roxburgh, Berwick, and Selkirk. From January 1st, 1872, the year in which the asylum was opened, until January 1st, 1882, there had been an increase of 81 in the number of pauper inmates, which brought the total number resident up to 205. The rate of increase showed evidence of becoming higher rather than lower. It, therefore, seemed probable at that time, five years after, January 1st, 1882, that is to say about the date of the entry, there would be a further increase of 38, or 243 in October, 1887, if nothing had occurred to check the process of accumulation; but the number actually in the asylum at that date was only 174, which is 69 less than the number which seemed probable. The asylum was in 1881 so overcrowded that the immediate erection of additional accom-

NUMBER OF LUNATICS AT 1ST JANUARY, 1888.

MODE OF DISTRIBUTION.	Male.	Female.	Total.	PRIVATE.			PAUPER.		
				M.	F.	T.	M.	F.	T.
In Royal and District Asylums	3155	3285	6440	684	709	1393	2471	2576	5047
,, Private Asylums	44	104	148	44	104	148	...	...	...
,, Parochial Asylums, *i.e.*, Lunatic Wards of Poor Houses with unrestricted Licenses	699	761	1460	...	...	...	699	761	1460
,, Lunatic Wards of Poor Houses with restricted Licenses	442	437	879	...	...	...	442	437	879
,, Private Dwellings	920	1482	2402	44	88	132	876	1394	2270
	5260	6069	11329	772	901	1673	4488	5168	9656
,, Lunatic Department of General Prison	38	14	52	...	...	...	...	...	...
,, Training Schools	146	82	228	74	50	124	72	32	104
TOTALS	5444	6165	11609	846	951	1797	4560	5200	9760

modation seemed to be necessary. It was pointed out to the District Board by the Commissioners that the accumulation was due more to a slowness in removing patients who had ceased to require asylum treatment than to an increase in the number annually sent to the asylum. Careful inquiry was made into the condition of every patient in the asylum with a view to the removal of all who might be suitably provided for otherwise. As the result of this inquiry a considerable number was discharged. Some recovered and became self-supporting after their liberation, and others were removed from the poor roll by their relatives; the ultimate result being that the number of pauper lunatics provided for in private dwellings in the district was only increased by 17. Thus, as the Commissioners observe, such removal is shown to be useful, not merely in avoiding the unnecessary enlargement of asylum buildings, but also in many instances in relieving the ratepayers altogether of the burden of maintaining the patients; and in some cases it is useful in effecting the recovery of the patients (condensed from Report, p. 35).

Possibly if in every County Asylum in England a similarly vigorous and systematic attempt were made, the erection of new buildings would be delayed for many years. We have never seen an explanation of the exceptional success of the Sussex Asylum Committee in this direction.

The general condition of the insane in private dwellings, under the supervision of the Board, is reported as satisfactory, and the system of providing for harmless and incurable lunatics in this manner is stated to be more and more a feature of the Scottish Lunacy Administration, and beneficial alike to the patients and to the ratepayers.

In conclusion we give the table (p. 566) showing the number and distribution of lunatics in Scotland on Jan. 1, 1888.

The Thirty-seventh Report of the Inspectors on the District Criminal and Private Asylums in Ireland. Dublin, 1888.

On January 1st, 1887, the total number of persons registered as of unsound mind in Ireland amounted to 14,702, while at the end of the year an increase of 561 was found to have taken place, raising the return to 15,263, which is thus accounted for: In public asylums there were 10,077 at the beginning of the year, and 10,499, or 422 more, on the 31st December last; in poor-houses the numbers increased from 3,841 to 3,961; in private asylums 602 patients were

returned in the beginning of the year, and 625 at the end. On the other hand, a diminution had taken place at the criminal asylum from 172 to 169, and the Government patients at Palmerstown had decreased by one.

The proportion of insane persons to the general population of 2·80 per thousand might be taken as identical in England and Ireland at the beginning of the present decade, but since then the tide of emigration from Ireland has swept away this analogy, for the mentally as well as physically infirm were left behind. Hence an apparent, if not a real, increase of lunacy has arisen. In recent years, also, many persons who had originally emigrated from Ireland, and had spent a portion of their lives in America, on becoming insane have been sent back to their native country, as shown last year, when five lunatics arrived at Queenstown from America. We would suggest that a statistical table corresponding to Table II. of the English Commissioners' Report would be most interesting, giving the ratio of the insane to the general population of Ireland for the last twenty years.

The admissions to Irish district asylums numbered 2,863 —1,558 males and 1,305 females—making a total under treatment in these institutions of 12,940.

Of the admissions 640 were relapsed cases.

The numbers received under the different forms of admission to public asylums were:—(1st) 1,891 under the 30th and 31st Vic., c. 118; (2nd) 76 by order of the Lord Lieutenant; (3rd) 842 under the ordinary application form; (4th) on the authority of the inspectors, 28, of whom 15 were soldiers who became insane when on active service.

The diminished population of some counties, and the decrease of the number of resident gentry are said to have caused an increase of the number admitted as dangerous lunatics, and a decrease of the application to the local boards. This would, however, be more easily explained by the fact that the dispensary medical officer is paid two guineas for a certificate under the Dangerous Lunatic Act, but is obliged to sign the application paper without fee or reward. Under the Dangerous Lunatic Act the insane person is at once transferred to the asylum free of charge by the police, while under the old form of application no provision exists for the safe removal of the lunatic, as it is only a request to have the insane person admitted, which may or may not be acted on, according to the pleasure of the

asylum authorities. The Dangerous Lunatic Act for Ireland is most objectionable, in that it converts the lunatic into a criminal, but until an order framed in a spirit more in accordance with the present ideas of civilization is introduced it seems useless to object to it, as at present it is the only summary power by which the insane poor in Ireland are able to obtain immediate treatment and safe keeping.

Of the total number under treatment in public asylums last year, 1,123 were discharged recovered, 375 relieved, and 84 not improved. The mortality amounted to 857, while only two escapes are recorded.

The recoveries, if contrasted with admissions alone, would appear to the Inspectors to present a too flattering result of the effects of treatment, being close on 40 per cent. They would wish to be more precise, and are of opinion that the percentage should be taken on the average under treatment. On looking at the statistics, no table can be found giving the percentage of recoveries on the admissions for 1887 compared with previous years, as found in the Commissioners' reports for England and Scotland.

Eighty-four cases were removed from public asylums not improved; these were generally taken away by their friends, so that they might die at home. It would therefore appear evident that no attempt has as yet been made to introduce the boarding-out system in Ireland.

The mortality amounted to about 7 per cent. on the total treated, a percentage which is said not to have varied during the past three years. But, again, on turning to the statistics no comparative statement of the percentage of deaths can be found. We would suggest to the Inspectors that, although their statements must be received with the most profound credence, it is usual in official and scientific reports to accompany them with comparative statistics bearing out their truth. Of the 857 deaths, 326 died of pulmonary disease, 234 of cerebral, 94 of abdominal affections, and 148 of old age. "The difference was owing to other ordinary maladies, but principally of a febrile character."

Two patients only are said to have committed suicide in a daily average number of 10,263; the number occurring in England during the same time amounted to 24, and in Scotland to seven.

The expenditure on the erection and enlargement of Irish public asylums is placed by Act of Parliament under the control of the three Commissioners of Public Works and the

two Inspectors of Irish Asylums, the former being joint trustees to the property of these institutions. This branch of the department has expended since 1830 close on one million and a half.

The total cost of maintenance of the insane in the twenty-two Irish public asylums during the twelve months amounted to £217,217 4s. 4d., and the average capitation cost of inmates in them was £21 3s. 6d., of which £10 8s. was obtained from the rate in aid, leaving £10 15s. 6d. to devolve on the country at large as the total cost of their pauper patients, being two shillings under the cost of the year 1886. The expenditure, however, differs much in the various asylums, owing to repairs, refurnishing, machinery, a rise in contract prices, etc. Apart from these causes, the Inspectors point out what different ideas the various Boards of Governors have of the object of the rate in aid. Some have a more liberal appreciation of its use, and for this reason greater comforts are provided for the inmates through its administration. The Inspectors are of opinion that the rate in aid should be not the principal support of public asylums, but merely an alleviation of local taxation. The Treasury Grant is stated to have come into full operation in 1878. Previous to that year the cost of the insane, at that time numbering 7,741, fell altogether on the local taxpayer, and the amount raised by taxation for asylum maintenance amounted to £190,000. In 1887 an increase of 2,758 patients had taken place, who were much better looked after, while the cost of their maintenance had decreased by 60 per cent. per head. Had the 12,940 asylum inmates last year been so many paupers in a workhouse, as otherwise they might have been, they would not have cost on an average thirty-two shillings less. In connection with this, the Inspectors suggest to the consideration of His Excellency a scheme (which they forgot to state was not original with them), viz., that the Treasury Grant should be appropriated to the payment of salaries, wages, and superannuations. At present the only appointment which the Executive retain is that of Medical Superintendent to each of the twenty-two public asylums. The Inspectors are disposed to think that, besides resident physicians, other asylum officials should be directly appointed by the Executive, so as to afford a more efficient and uniform selection, and that all should be paid out of the Treasury Grant, and be incorporated as members of the Civil Service.

In other countries, taking America for example, so progressive in its apprehension as to lunatic requirements, its public institutions for the insane in all its divisions and dependencies are designated by their practical and true name, "State asylums," and which, for social reasons in regard to communities at large and for individuals on personal grounds, are placed under a special department and controlled by each separate Legislature.

The meaning of the latter part of this paragraph is not easily understood, nor does America appear to be a good example to take of the utility of State interference in the management of asylums, as we have always understood that the want of a central authority and uniform system of management was considered by some to be a defect in these most excellent institutions.

The supply of provisions during the year was considered so satisfactory and the contracts were so much in the favour of the local boards of public asylums that the contractors, like the Israelites of old, prayed to the Inspectors to be relieved of their burdens.

Cereal food, such as bread and oatmeal, the latter much used, has been uniformly of good quality, as also milk, an article of very large consumption.

Groceries were obtained at reasonable terms and of fair quality.

With reference to animal food prices varied. In some places it cost only 4d. to 4½d., and in others from 5d. to 6½d. per lb. With regard to textile fabrics—bedding, linen, and such like—they are also purchased by contract.—Home-manufactured frieze, a lasting and most suitable material for men's wearing apparel, is almost solely obtained. Coals, relatively to all other domestic articles largely consumed, and in the absence of Irish coal mines comparatively with what obtains in England, is a heavy item of expense in our district asylums.

Nothing could be more gratifying than the description of the fortunate lot of the insane in Irish asylums—the oatmeal and milk so much used! groceries so good and so cheap! meat at 4d. per lb.! Above all the home-manufactured frieze, which, it is to be hoped, after so high a recommendation, will shortly come into universal demand, and which ought to make up for the deficiency in the supply of coal—the only thing needed.

The accommodation provided is not, however, spoken of in the same laudatory terms. The dormitories, although airy and maintained with cleanliness, are so much overcrowded

that the cubic area for each patient is as much as twenty per cent. below the space thought necessary under the laws of modern sanitation, and the day-room accommodation is even worse, from the fact that in many cases, from the necessity of providing space, these rooms have been converted into dormitories. From the overcrowding of the rooms classification becomes impossible, and therefore the inspectors, even at the risk of being considered extravagant, are constantly endeavouring to meet these obvious requirements for more space. In domestic arrangements, particularly in the old asylums, there is much to be remedied, the kitchens, laundries, and stores being quite inadequate for the increase in the number of the inmates. Even in the newer asylums much inconvenience is experienced from the sudden increase of the number of admissions.

The Inspectors again speak in the same laudatory terms as they have done in preceding reports, not only from their own observations, but from the reports of the medical superintendents, of the manner in which the subordinate staffs as a general rule perform their duties, "not only with "zeal and assiduity, but with a forbearance and kindliness "of demeanour towards the insane, many of whom, it must "be added, are frequently irritable and most difficult to "manage."

It may be that Irish attendants and nurses are of a higher mental and moral status than those met with in other countries, but we would suggest for the consideration of the Inspectors that as the medical superintendents have no voice in the appointment or dismissal of their staff they naturally take much less interest in their conduct than would be the case were the attendants alone responsible to them.

Occupation is stated to be far from neglected in district asylums, "looking at the peculiar and uncertain character of the insane." It is admitted, however, that the amount of land attached to these institutions is not sufficient, and it would seem that much remains to be done with a view of providing increased means of employment.

In order to introduce a spirit of emulation in the different asylums we would suggest as an addition to Table No. 30 a comparative statement of the number of patients employed in each asylum, in addition to the amount of work done. Amusements are now liberally provided, and advocated by the local board as not alone curative agents, but with a view to alleviate the unhappiness of those who feel the depriva-

tion of their liberty. In some asylums bands are provided, music encouraged, and country excursions and dances take place every week.

Boards of Governors of Irish public asylums have been appointed for the last sixty years by successive Lord Lieutenants. The attendance of some members of these bodies was not considered sufficiently regular, so a revision took place, and fresh appointments were made "from the gentry and educated body of society," an arrangement which, in the opinion of the Inspectors, "leaves nothing to be "desired as ensuring the same considerate, tranquil, and "successful system of management that has been hitherto "uniformly sustained without offence to any class of the "population, in a spirit of benevolence towards the insane "poor and with a due regard to economy."

It is to be presumed from these remarks that the Inspectors are a conservative body, loving the old *régime*, and in no way anxious for the introduction of new or democratic doctrines.

The ministration of religion to the insane by the chaplains of different sects is spoken of as most beneficial.

> The three principal religious denominations—Catholics, Protestants, and Presbyterians—have in many asylums separate places of worship, and at the same time a cordial and unbiassed relationship, in which the distinctive forms of religion are unknown, animates the three alike.

The meaning of this is not quite clear. If the distinctive forms of religion are unknown, why is it necessary to have three separate places of worship and the ministration of three separate chaplains? If all feelings of religious bigotry have been removed in the asylums of Ireland we can only say that the inmates of these institutions must possess a larger share of common sense than falls to the lot of the general population of that country.

The twenty-two district asylums are next taken in alphabetical sequence, and a short account of each is given. These take the form of brief historical sketches, in which information is given of the population of the district in which the asylum is situated, with the rateable valuation, the number of inmates in the asylum, the expenditure, the cost per head per patient, and the amount payable for their support from local taxation.

The Dundrum Criminal Asylum is next reported on. At the

end of 1886 the number of inmates amounted to 172, whilst at the end of the year only 169 were found resident. A large number of the inmates having been transmitted to the asylums of their district, the previously overcrowded condition of the wards has been somewhat lessened. The Inspectors, however, recommend an increase of accommodation by the construction of an annexe, containing a dormitory for sixteen and a day-room of proportionate dimensions.

The condition and general management of the asylum meets with the highest praise. The patients are carefully and kindly treated, the attendants are attentive to their duty, the dietary good and ample, the farm well cultivated, and the sanitary condition of the institution particularly favourable. The neighbouring residents, however, so strongly complain of the overflow sewerage that a new system is about to be adopted.

The number of the insane in Irish workhouses amounted, on December 31st, 1887, to 3,961, of whom 1,565 were males and 2,396 females, being an excess of 120 on the preceding year.

It would be erroneous, however, to regard the preceding total as being composed of lunatics in the ordinary acceptation of the term, the larger proportion of them belonging rather to the epileptic and idiotic classes, a considerable portion of whom were imbecile from birth, or, being in early life affected by some type of insanity, in the progress of time became idiotic.

The visitation of workhouses is included amongst the official duties of the Irish Inspectors, but as these institutions number 162 they are unable to visit them within any specific time. Still they are enabled to state that from year to year an amelioration takes place in the condition of the insane inmates; they are not only objects of kindly consideration, have a better dietary, and in some cases, where numerous, they have not only paid attendants, but if able to work are industriously occupied.

Under the 38th and 39th Vict., cap. 67, three lunatics have been removed from the Derry asylum and placed in the Limavady workhouse. Eighteen are in the Ennis poorhouse, belonging to the asylum of that county, and 87 at the Ballymena Union from the asylum at Belfast, in consequence of the want of space for the insane in these district asylums. Of the number of idiots and epileptics wandering at large, to whom reference was made in a former report, the Inspectors

are not as yet in a position to give any statistical information.

The number of inmates in the twenty-three private asylums had increased by 23 during the year, there being 602 under treatment at the close of 1886, and 625 at the close of 1887.

These institutions consist of four, supported in part by voluntary contributions, and nineteen which come under the denomination of "licensed houses." The accommodation provided for the insane of the middle classes is stated to be insufficient, as they are often unable to gain admission to district asylums, already overcrowded by the insane poor, and are unable to pay for their maintenance in a private institution, and thus lose the benefit of treatment in the early stage of their malady. It must, therefore, be understood that the four lunatic hospitals referred to, as supported partly by voluntary contributions, are not sufficient to supply the demands of the middle classes in Ireland.

The Inspectors, in concluding their report, call attention to the difference which exists in public and private institutions for the insane with reference to inebriety as a cause of insanity.

Comparatively very few, save urgent cases of delirium tremens, are sent to district asylums from an uncontrollable indulgence in fermented or "spirituous liquors," its results, as a rule, being subject to magisterial inquiry and punishment. In the better classes such dissipation leads to a private licensed asylum as causing a total abandonment of family and social duties, accompanied too often with a senseless depravity, especially and still more unfortunately among females. It is difficult to act in such contingencies—between confinement on the one part, and on the other a freedom, to be probably followed by similar excesses.

Francis Bacon, his Life and Philosophy. By John Nichol, M.A., Balliol, Oxon, LL.D., Professor of English Literature in the University of Glasgow. William Blackwood and Sons, 1888. ("Philosophical Classics for English Readers." Edited by William Knight, LL.D.)

The life of this ever-memorable man must always possess an interest for the psychologist. The strange contradictions in one character, the marvellous range of mental vision, the versatility which touched upon so vast a number of subjects,

and adorned all that it touched, the perfect condition of the mental instrument by which moral truth is perceived, all this and much more, combined with the grossest forms of self-aggrandisement, the resort to the most fulsome flattery of those whom he well knew did not merit it, for the purpose of attaining his own ends, and, lastly, his acceptance of bribes, directly and indirectly, when holding the highest judicial position in the realm, render the life and mind of Francis Bacon a tempting and profitable study for the anatomists of character. If it could have been shown that Lord Bacon's vices were only those of the age in which he lived, the striking contrasts of light and shade in his character would have been materially lessened; but as he himself laid down with admirable perspicuity the duties of a judge in the very particulars in which he contravened them, the lapse evidently occurred in individual action, and not in either the inability to perceive moral truth, or in the standard of the age in which he flourished.

Whatever interest attaches to Lord Bacon's natural mental constitution, the study of his career possesses the added interest arising from a distinct indication of, at least, temporary mental derangement, however slight. The proof of this occurs in his private diary. When 47 years of age, and not till then, did he obtain those offices for which he had so strenuously striven, and at that period he thus wrote (1608) :—"I have found now twice, upon amendment of my fortune, disposition to melancholy and distaste, specially the same happening against the long vacation, when company failed and business both; for upon my Solicitor's place I grew indisposed, and inclined to superstition. Now, upon Mill's place, I find a relapse unto my old symptom, as I was wont to have it many years ago, as after sleeps; strife at meats, strangeness, clouds, etc."

With regard to the manner in which Professor Nichol has performed his task, it is impossible to speak too highly. His impartiality in his judgments of a character about which writers have been absolutely partial, either in unqualified admiration or detestation, is transparent throughout the book. He has produced an essay which is itself a composition, the ability to compose and the labour to prepare which those only can properly estimate who have themselves ventured to compose. There is not a page in this work which does not indicate mental culture, philosophic thought, and the complete mastery of the subject upon which it

treats, and to few productions of the present day could slipshod writers and careless thinkers be referred for a model with more advantage than this life of Lord Bacon. We shall look with great interest to the second part, which will contain a review of his philosophy.

Well may we say with Professor Nichol in his concluding sentence :—

When the tale of Lord Bacon's life—the half-accusing, half-exulting record of unequalled powers with unequal will—has been plainly told, there is no need of rhetorical flourish, appended sermon, or futile "open sesame." In mass, in variety, in scope, his genius is the greatest among men who have played a part at once in widening the bounds of the kingdom of thought, and in fencing the bulwarks of their country.

Bibliographie des Modernen Hypnotismus; von Max Dessoir. Berlin, 1888.

This is certainly an excellent result of the best and most accurate German industry applied to a subject which has for long been much in want of both industry and accuracy. The gradual revival of interest in the very difficult observation of the phenomena that are now commonly called hypnotic has spread throughout Europe and America, and evoked attention and remarks in so many places and from so many points of view, that it is difficult to make sound and satisfactory progress until all the scattered particulars of knowledge can be included in one comprehensive survey and the cardinal points of the subject determined. For a subject in such an inchoate or transitional state it is a great advantage to have all the first hand sources of information collected and tabulated; and when the study of a special subject tends—as hypnotism has done to some extent in France—to run into schools, each of which is inclined to consider its own phenomena only, then it is particularly desirable that each should be made fully aware of the work of the rest of the world. Max Dessoir has himself written some important memoirs on hypnotic subjects, and in this bibliography he has carefully collected all the titles of the books and references to the articles of modern times on the same class of subjects, from sources as widely apart as the "Fortnightly Review" or "Revue des Deux Mondes" and the smaller medical journals of Barcelona, Budapest, and Buffalo. The books

and articles catalogued amount to 801, and the latter are taken from 220 periodicals in 14 languages, including Greek, Hungarian, Polish, and Portuguese. Nothing is quoted that was published further back than 1842; the earliest reference is to "Topham and Ward: Case of amputation of the thigh during the mesmeric state. London, 1842," but a few of the more important works of these earlier times, such as Braid's "Neurypnology. London, 1843," and Esdaile on "The introduction of mesmerism as an anæsthetic and curative agent into the hospitals of India. Perth, 1852," are left out, as well as Heidenhain's more recent essays "Halbseitige Hypnotismus, etc. Breslau, 1880." The author does not attempt to frame any complete catalogue of the literature of the subject before it took on its most recent dress of "modern hypnotism," and it is difficult to lay down any precise moment for the change or any very accurate limits of the subject. M. Dessoir is very well aware of this, as he explains in his preface, and he also intentionally omits, as leading him too far from his main subject, all the literature of metallotherapy, of the Reichenbach school, and of the transfer of the hysterical affections. Such omissions will readily be granted, and then the patient accuracy and complete thoroughness of the catalogue of the observations of the present generation becomes most evident and satisfactory. It would be beyond all reasonable expectation that some trifling articles, such as one of Hans Kaane, and others of Björnstrôm and Widmark, of Stockholm, should not need insertion in a second edition, but the book as it stands is a monumental bibliography. Of individual contributors to this recent literature we naturally find the French at the head with most contributions, from Prof. Charles Richet (20), Féré (17), Bernheim (16), and Charcot (13); the English next with the most and the most valuable papers from Gurney (15). The literature of the legal position of hypnotism is almost entirely French; that of action at a distance (*Fernwirkung*) or Telepathy begins by being almost all English. We are very glad to notice in the preface that M. Dessoir promises us very soon a complete history of modern hypnotism, and his previous labour shows us that we may expect it to be built on a very solid foundation. M.

Insomnia and other Disorders of Sleep. By M. LYMAN, A.M., M.D., Professor of Physiology, and of Diseases of the Nervous System in Rush Medical College, Chicago.

The author of this book travels over the ground belonging to the phenomena of sleep, its nature, and cause; insomnia, its causes, and remedies, and its treatment in particular diseases. A chapter is devoted to dreams, and the concluding chapters are devoted to somnambulism, spontaneous and artificial. Dr. Lyman adopts the hypothesis of Pflüger, that wakefulness is maintained by the activity of the cerebral cortex, this being renewed by the materials carried to it by the blood, oxygen being thus stored up in combinations which form "explosive compounds." When the supply is insufficient and the cortex is not sufficiently renewed after mental action, the "sensitive portions of the brain are no longer fitted to manifest the highest forms of intelligent activity" (p. 21). When impressions from without affect the brain, unstable compounds of protoplasm are reduced to simpler forms. Such "explosions" liberate motion which is projected into consciousness and we come into conscious relation with the outside world. But this, like all attempts to bridge over the river which separates matter and mind, is at best an ingenious hypothesis and admits neither of proof nor refutation. They carry us little, if at all, beyond the knowledge of some of the conditions which are essential to conscious life. Then comes the attempt to explain the transition into the unconscious condition of sleep. Here our author accepts the theory of Preyer and Obersteiner and finds it easy to explain sleep by supposing an accumulation of fatigue, producing products of intramolecular oxidation, when it comes on gradually, although this does not account for the rapid change into a state of profound sleep. It is supposed that when mental activity sufficiently long-continued produces the accumulation of acid refuse which damps the explosive material of the brain, sensory impressions fail to excite in the cortex vibrations sufficient in length to sustain consciousness. When the sailor falls asleep he has exhausted the supply of oxygenated protoplasm stored up in his brain for a certain period of activity. Many fall asleep directly after the external stimuli of brain action are removed. The observations of Masso are laid under contribution. In his cases, the skull having been partially removed, the pulsation of the

vessels could be observed, and by the aid of delicate instruments it was found that the actions of the emotions or intellect increased the blood supply to the brain, while when sleep occurred the heart's pulsations as well as the number of respirations were reduced, as also the volume of the brain. When consciousness returned the intracranial circulation was increased. As the change in the circulation was secondary to the excitement of the brain, sleep is regarded as the cause rather than the result of the anæmic state of that organ in repose. The fall, or depression in circulation is the accompaniment of mental inactivity. When external stimuli act upon the brain through the senses, the movement induced excites the vaso-dilator nerves of the vessels of the brain, and the vaso-constructor nerves of other portions of the vascular system. In short, sleep is occasioned, according to this view, by the condition of the grey matter of the brain rather than changes in the vascular supply. As the writer puts it, "sleep is self-generated by the instrument of thought" (p. 29). On the other hand, the sleep caused by narcotics is due to substances from without interfering with the processes of oxygenation, in the same way as the natural refuse of the cerebral cells.

The remarks on somnambulism do not call for any special observation. An interesting case is related by Professor Allen, Dr. Lyman's colleague at the Rush College, the subject being a medical student residing in the professor's house. One of his exploits during sleep-walking was to visit a patient during the night*, a feat resembling one recently recorded of the superintendent of an asylum.† It appears that upon the previous evening he had informed the family that if he did not find his patient better on the next visit he should entirely change the medicine. In the morning, on going to the stable for his horse he was somewhat puzzled on observing various articles misplaced, but did not suspect the cause. He visited the patient and found him improved, and he was then told that the improvement took place after the administration of the powders in the night. "The truth flashed upon him at once, but concealing his emotion, he inquired, with as careless an air as he could assume, 'About what time was it when I was here?' They replied, 'Between two and three o'clock.' This proved to have been the case, as he was afterwards told by the family

* After he had ceased to live at Dr. Allen's house.

† "Sleep-Walking and Hypnotism," by D. Hack Tuke, p. 35.

where he boarded. He had been giving the patient some fluid medicine, which he ordered to be discontinued, and he had then put up several powders, such as he had concluded upon the previous night, combining them as usual, and administering the first one himself" (p. 190).

The book is creditable to the Rush Medical College professor. We are informed that this is one of the best Colleges in the United States. Bearing as it does so honoured a name, it would be an especial matter of regret were it otherwise.

The Applied Anatomy of the Nervous System. By Ambrose L. Ranney, A.M., M.D. London, H. K. Lewis, 1888.

Is there room for another work on the nervous system? It is true the author's work is not a treatise on diseases of the nervous system, but an application of the facts of anatomy and physiology to disease. Useful as is such application, we do not think that there is need of it in this country. There is Ross' work on "The Diseases of the Nervous System," in which anatomy and physiology are very completely dealt with —in our opinion too completely. There is, further, Gower's most admirable treatise on diseases of the nervous system, in which, as a rather special feature, we find anatomy and physiology applied to the elucidation of the facts of disease, and in excess of these facts, *i.e.*, details anatomico-physiological are recorded only in so far as they can be applied. Dr. Ranney's book is richly illustrated by drawings, both *ad naturam* and schematic. It must be well understood that our objection is simply that the book is not required. The section, for instance, on the spinal nerves is anatomical, almost purely. Drawings from Sappey and from Flower with diagrams of the motor points—all these are to be found in standard works. What is the use of multiplying these descriptions? And wherein is the practical (applied) value of the long table of the distribution of nerves with which the section abounds? In the section which deals with cerebral localization we find no insertion of the representation of trunk movements on the mesial aspect of the hemisphere as described by Horsley and Schäfer—an important omission.

La Folie chez les Enfants. Par le Dr. Paul Moreau (de Tours). J. B. Baillière et Fils, 1888.

Dr. Moreau begins his disquisition with the question, What is a child? What shall be the limit of age for childhood? Obviously the question admits of no accurate definition, inasmuch as the limit will vary not only for whole races and nations, but also for each individual. The popular meaning of a child has, therefore, to stand.

The treatise is divided into two parts; the first deals with the ætiology of insanity in children, the second part with the forms which that insanity takes. Concerning the ætiology we may say generally that the same causes which are capable of determining insanity in the adult may be effectual for the child. Dr. Moreau divides the causes into two classes—moral and physical. What he precisely intends to convey by these terms is not apparent, for we find under the head of Moral Causes the terms—heredity, backwardness, imitation, education, character, etc.; under the head of Physical Causes—temperament, climate, puberty, etc. To us it seems that *states* and *causes* are hopelessly confused in this classification. How, for example, can a backward state (arriéré) be given as a moral cause? And, again, how does temperament find its place amongst physical causes whilst character stands as a moral cause? The term temperament, at best a vague one, surely includes other elements than purely physical ones.

The cases given in illustration of the action of a particular cause do not appear always to have been very critically examined, *e.g.*, on p. 97 we find amongst the evidence that alcoholism is occasionally a cause of disease in children, the case of an infant at the breast suffering from convulsions. In the absence of any other discoverable cause, the fact that the nurse was drinking seven to eight glasses of wine (vin pur) per diem is given as the cause, and the case is recorded as one of alcoholism in the new-born. The excretion of alcohol by the mammary gland—has it ever been proved? And though we should accept the cause of convulsions as alcoholic in nature in the sense that the nurse's health must have suffered and of necessity, therefore, the quality of the milk —would this necessarily mean that the convulsions were produced by alcohol in the milk?!

Of this, the ætiological section, we must confess that it does not appear to have been done very carefully.

A table of the various forms which insanity may take in children prefaces the detailed consideration of these forms. Dr. Moreau states that all the forms met with in the adult are also found in the child; the special stamp which these affections bear in children being the result of their inexperience of life.

De la Suggestion et de ses Applications à la Thérapeutique. Par Le Dr. BERNHEIM, Professeur à la Faculté de Médecine de Nancy. Paris, Octave Doin, 1888.

All who have followed the course of recent development of hypnotism on the Continent are aware that a new school has arisen, which recognizes, as English writers and observers have long recognized, the enormous and perplexing *rôle* played by Suggestion. None the less is the importance of hypnotism acknowledged, whether regarded from a psychological-therapeutic point of view. Of the school now spoken of, that of Nancy, Dr. Liébeault was the initiator. Dr. Bernheim is perhaps the ablest exponent, and we are glad to see that his work has reached a second edition. The facility with which he induces the hypnotic state surprises those who attend his clinique. He denies that this sleep is pathological. It is not a neurosis analogous to hysteria. Moreover, all the manifestations witnessed in the hypnotic condition can, in the same subject, be elicited in even his ordinary sleep. The alleged physical phenomena of hypnotism are only psychical; catalepsy, transference, contracture, etc., are all the effects of suggestion (p. 3). So is the sleep itself. No one can be put to sleep against his will; but it is equally true that certain persons are unable to resist, because their will is weakened by fear, or by the idea of a superior force. Hence it is more correct to say no one can be hypnotized if he has not the idea that he is going to be hypnotized. In reference to the extraordinary allegations of MM. Bourro and Burot, etc., the author frankly avows that he has never succeeded in confirming them. In an experiment of this kind which he witnessed he was certain that suggestion explained everything. Dr. Bernheim has also failed to produce transition of thought from one person to another.

It is, however, in its relation to the healing of disease that the book before us possesses a special interest. The success of this mode of treatment rests upon the remarkable modification of the nervous system which takes place in

hypnotism. As the author says:—" The brain becomes more docile, more malleable, more susceptible to suggestion on the one hand, more able on the other, to react upon the functions and organs by means of inhibition, or of *dynamogénie*."

It is worth while to record what follows as a matter of history.

M. Liébeault, of Nancy, improved upon the method by which Braid applied suggestion in order to induce hypnotic phenomena, the English surgeon having himself improved upon Faria. It appears that the earliest researches of Liébeault were in a work entitled " Du Sommeil et des états analogues considérés surtout au point de vue de l'action du Moral sur le Physique." (Paris, 1866.) This treatise was as seed falling on stony ground. It was thought to be the clever thing to treat it with contemptuous incredulity. In 1881 M. Dumont, who held a high position in the Faculty of Medicine, studied the proceedings of M. Liébeault, and was convinced of the reality of the alleged facts. He experimented successfully at the Maréville Asylum. At the request of M. Bernheim he presented, in 1882, to the Medical Society of Nancy, four subjects in whom he induced phenomena, which greatly interested the members. The author adds to this statement that he has made experiments since that period, and at first with great scepticism, but finally with striking and reliable results, which obliged him to speak out.

A work of about 600 pages contains too much matter to allow of anything like a *resumé* of its contents. We can only give the precepts which the author lays down as needful for the hypnotizer to adopt and follow before he practices his art upon a patient:—

Never send a subject to sleep without first obtaining the formal consent of himself, and of those under whose authority he lives.

To practice only in the presence of a third party, who guarantees at once the person who hypnotizes and the person who is hypnotized.

Never to give to the hypnotized subject any suggestions beyond those required for his treatment, except with his consent. It is needless to say that such consent ought not to be obtained through the influence of hypnotism.

Dr. Bernheim asserts, in conclusion, that it is suggestion applied to treatment which he, as a physician and Professor of Clinical Medicine, felt it to be his duty to study in an especial manner. While relying upon numerous facts, he

maintains that suggestive therapeutics exist, although he is far from saying that they are always applicable or efficacious, frequently as this is the case. "It is with no idle aim, it is not merely to satisfy a vain scientific curiosity, that induced me more than six years ago to undertake the study of hypnotism, in spite of many obstacles, and which I have rigorously pursued in spite of being laughed at."

No transcendental absurdities, or credulous flights of the imagination, mar the pages of our author's carefully-written work, which we cordially commend to those who wish to study in a practical manner the application of suggestion to the cure or alleviation of disease. Had M. Luys employed the same caution as that shown by Dr. Bernheim he would have saved himself from falling into the pitiful mistakes which he has made in regard to the pretended influence of certain drugs in glass tubes *à distance.*

Moral Philosophy and the Natural Law. By JOSEPH RICKABY, S.J. Longmans, Green, and Co.

We regret that this book cannot be adequately reviewed in this Journal. It covers ground which is too extended for us to attempt to include. Among the headings of the numerous chapters there are many which are very tempting, *e.g.*, "Of what makes a human act less voluntary," "Of the determinants of morality," etc. The author, we are surprised to see, makes happiness an act and not a state; after carefully reading this section we must confess that we were unable to come to the same conclusion. One sentence from this chapter, however, contains so much truth and is so well put that we are glad to quote it:—"For a man must live up to his nature, to his bodily constitution, to be a healthy man; and to his whole nature, but especially to his mental and moral constitution, if he is to be a happy man."

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect.*

Asylum Reports, 1887-8.

(*Concluded from p. 447.*)

Bedford, Hertford, and Huntingdon.—It is reported that the general health of the patients was good; that there was no epidemic, but that slight cases of erysipelas occurred from time to time, which could not be accounted for, but which were at last ascertained to have arisen from a considerable leakage in the sewage pipes.

Asylum officers may draw a very valuable lesson from this: that if they look carefully enough they will always discover some sanitary defect to account for such outbreaks of erysipelas, diarrhœa, etc.

One hundred and two deaths occurred during the year, and of these 15 were due to phthisis.

East Riding, Yorkshire.—In his report Dr. Macleod says:—

I have been led to observe that the patients admitted from this district usually suffer from varieties of insanity which, as a rule, do not present hopeful prospects of cure. There is an absence of the more acute forms of the disease, and the insanity most prevalent often strikes me as a mere exaggeration of a general somewhat low standard of intelligence. In many of the more isolated villages in the Riding there appears to be a considerable amount of hereditary tendency, not so much to actual insanity as to an ill-balanced, ill-developed nervous system, producing individuals who are never very bright, and who, when subjected to the strain of some exciting cause, develop habits and tendencies which necessitate their being placed under care. The onset of the actual disease in such cases being gradual is not observed, or is tolerated with a hope of its passing off, until the opportunity of amendment is lost, and the morbid mental state becomes confirmed. The present depression in agriculture no doubt helps to foster this state of affairs. The stronger and brighter men are emigrating, or will migrate to towns for work, and those remaining contain a larger proportion of the class I allude to.

Dr. Macleod reports favourably on the allowance of money to patients absent on trial. He says:—

The power of making an allowance of money to patients while absent on trial sanctioned under Section 79 of the Lunatic Asylums Act, 1853, was used for the first time during last year. This provision of the law is in suitable cases a most beneficial one. It enables a man without money or friends to have a means of subsistence till his health is quite re-established, and until he is able to gain employment. It cannot always be just to turn a convalescent from a severe illness upon the world—with his powers of earning a livelihood lessened—without giving him something to fall back upon. Such an allowance of money for a few weeks will often prevent a recurrence of insanity which would again place the man a burden on the public rates, and as each case must come before the Visitors and be decided upon its merits the provision is not at all likely to be abused.

Only four of the twenty-five deaths were due to phthisis.

South Yorkshire.—It must be a matter of deep regret that since writing his last report Dr. Mitchell has been compelled to resign on account of bad health. His disposition caused him to shun publicity of every kind, so that his many virtues and good qualities were known to but few personally though to many by reputation. As an asylum administrator he had few equals, and under his care Wadsley has long been one of the very best asylums in England, a place to which many flocked with the view of copying its arrangements, and which had but one fault—its enormous size. We have always protested against these overgrown places; they are burdens not to be borne by men of even average physical strength, and require such an amount of supervision that the superintendents have no time for necessary change of scene and occupation. An asylum like Wadsley affords abundant occupation for two superintendents; and if Dr. Kay desires a moderate degree of comfort in his official life he will, we think, do well in persuading the Visitors to relieve him of half his work. Now that Dr. Mitchell has retired he must experience an ease of mind and elasticity of spirits which he has not enjoyed for many years, and we most earnestly hope that his escape from official cares before it was quite too late will enable him to enjoy many years of that peaceful retirement he so richly deserves.

The system of granting to patients discharged on trial the statutory weekly allowance, during probation, was in operation during the greater part of the year, and is considered to have been beneficial and satisfactory in its results.

The introduction of Tobin's tubes into the women's infirmary ward has, in a marked degree, improved the ventilation, and a more extended trial of the system is in contemplation. Further experience in the use of the electrical and telephonic communications has fully proved their great utility and value.

West Riding of Yorkshire. Wakefield.—The sanitary improvements are completed, and the result is that the health of the house has been satisfactory.

In one particular, affecting the health of the inmates, the history of the year presents an exceptional feature; the late Summer and Autumn diarrhœa and dysentery, which had been so constant a phenomenon for years past as to be almost regarded as endemic to the locality, have both been completely absent—an interesting fact, taken in connection with the very prolonged drought to which we had been subjected.

We have from time to time directed attention to the occurrence of epidemic pneumonia in asylums. The following extract from Dr. Lewis's report gives useful and interesting information on an outbreak which occurred at Wakefield in 1887.

The pulmonary affection which in its clinical history and pathological aspect was undoubtedly a form of epidemic pneumonia due to some specific infective agency commenced in February and terminated in April. The co-existence of

this epidemic pneumonia on the male side, and of enteric fever on the female side, although extremely suggestive, must not be regarded as conclusive of a *community* of *specific* origin, but probably points to several conditions existing at the time favouring the development of both diseases. As regards the prevalence of pneumonic affections amongst the men—apart from the large number of the sex suffering from exhausting diseases—it must be borne in mind that *sudden fluctuations* of temperature are to them of the greatest import, especially in the case of the aged and restless subjects whose condition prevents them sleeping under observation, and who are constantly prone to expose themselves to chills. An equally maintained temperature, or the ready means of graduating such by night as well as day, is a requirement in our male building not met at present by the system adopted. The problem of efficient ventilation of single rooms supplied by uniformly warm air has not yet been worked out, and in no asylum or plan have I yet seen any approach to such a room as hygienic considerations and the peculiar circumstances of the case demand. Yet these series of single rooms are those appropriated to the infirm or the restless and acute cases requiring the maximum of hygienic surroundings.

It is quite evident that enormous efforts are made to improve the condition of this asylum, but the structural difficulties to be met appear to be really insurmountable.

Two hundred and ten deaths occurred during the year; of these 32 were due to chronic pneumonic phthisis, and two to acute miliary tuberculosis.

York Retreat.—The reports by the Commissioners, which we believe are very favourable, are not published. We would suggest that this omission be supplied in future.

Dr. Baker reports that a large house has been taken on lease for the purpose of a Convalescent Home, with accommodation for ten resident lady patients, and has been so altered and adapted as to make it not only suitable for the reception of convalescent patients, but also for those members of the Retreat family, numbering about fifty, who annually visit the seaside for varying periods of one to six weeks. The alterations have been carefully carried out, and will give additional comfort to the patients during their visits, and will, it is believed, enable an additional number to participate in this healthful change, the staircase, rooms, and various parts of the house being fitted with many safeguards not to be obtained in ordinary lodging-houses.

None of the deaths was due to phthisis pulmonalis.

Scotch Asylums.

Argyll and Bute.—This asylum is overcrowded, especially in the infirmary wards. To obviate such a state of things the General Board of Lunacy recommended the removal of all out-county patients (both pauper and private), and also harmless district patients; but as the District Board derived considerable profit from private patients it resolved to erect additional buildings to afford the necessary hospital accommodation. The General Board, however, declined to sanction such building; and, in consequence, a number of the patients have been removed. The District Board

is decidedly of opinion that the proper course would be to build a hospital specially designed for that purpose rather than convert some of the ordinary wards into hospital wards—the estimated difference in the cost of the two schemes being only £1,000.

There can be no doubt that the General Lunacy Board is right in its view of the case.

Of the 17 deaths during the year only two were due to phthisis. Dr. Cameron's report is a remarkably meagre production.

Crichton Royal Institution.—During the year the female department of the "Second House" has been completed and occupied. The accommodation appears to be very superior, and is highly reported on.

The following paragraphs are from Dr. Rutherford's report:—

Four years ago the Board of Trustees and Directors sanctioned the reception into the institution of private patients from the district at the lowest, and from any part of the kingdom at the intermediate, rates of board. This has evidently met a felt want, as there are now resident upwards of 130 private patients paying £1 per week and under. In many districts, particularly in England and Ireland, there is a lack of adequate asylum accommodation for the lower middle class. The poor are amply provided for in the county and district asylums, and the wealthy can always command proper treatment, while there is scarcely a pauper asylum which has not middle class patients paid for by their friends, but sent in through the parish, and classified as paupers. Even were the county and district asylums to open their doors to such patients, the fact that such asylums are rate-supported, and that in them private and pauper patients must associate, cannot fail to be an objection to many.

The experience of the new building bears out what I have always held, and always acted on—that the more roomy an asylum is, the better furnished, and the less prominent are special contrivances for the prevention of injury, the better will the patients behave and the sooner will they recover. It cannot be denied that such surroundings as now exist in the second house necessitate great watchfulness on the part of the attendants. Indeed, the amount of vigilance and care demanded of those entrusted with the immediate charge of the insane can only be fully appreciated by those who daily see their work; and the longer one does so, the responsibility becomes more apparent. It is, therefore, of the utmost importance to procure the services, as attendants on the insane, of persons of good character, of good temper, and intelligence.

We are glad to find that Dr. Rutherford continues the employment of gentlemen in the gardens.

Only two of the 32 deaths were due to consumption.

Dundee, 1886-7.—Dr. Rorie discusses at some length the question of removal of possibly curable cases to workhouses. We, to some extent, agree with him when he says:—

From a careful consideration of these facts, I am convinced that were it agreed that no patient should be eligible for removal to the lunatic wards of poor-houses who has not been for three years at least resident in the asylum, and that all patients who could equally well be taken care of in the lunatic wards of poor-houses (and by the provision of a few single rooms and an increased staff of attendants this might include a large proportion of epileptics, paralytics, and the degraded class of the chronic insane) should be removed from the asylum as

from the curative hospital on the lapsing of the detaining power of the sheriff's order, many of the complications of the present system would be obviated.

Besides educational and musical classes, conducted by members of the staff, Dr. Rorie again delivered a course of lectures to the nurses, attendants, and servants,

but on a much more extended scale than that of last year. To make this as efficient as possible, attendance was here compulsory, all those employed in the service of the asylum being divided into two classes so as to suit convenience of attendance. Seven lectures were delivered to each, or fourteen in all, and embraced not only the duties required of all in their dealings with the patients, but also included elementary instruction in physiological anatomy and mental science. Copies of a synopsis of each lecture were also provided for those attending. From the interest and attention shown this system of imparting a thorough knowledge of their duties to those in the employment of the asylum cannot fail to be beneficial.

In only two of the 26 deaths was phthisis primarily or secondarily the cause.

Dundee, 1887-8.—Dr. Rorie says:—

The principles followed in the Dundee Asylum have often been referred to, and briefly consist in endeavouring to bring the physical condition of the patients to its highest state of perfection, and the provision of healthy employment. At the same time the operation of remedies calculated to influence the mental state through the nervous system is not overlooked, and two of these recently brought under the notice of the medical profession—hyoscine and hyoscine hydrobromate—have been found of great value in allaying the excitement of acute mania and that of general paralysis.

The deaths numbered 27, and of these only two were due to phthisis.

Edinburgh Royal Asylum.—As usual, Dr. Clouston's report is a very careful production, and is largely a popular lecture on some aspects of insanity. The whole is well worthy of consideration by all interested in asylum management, but we will content ourselves with the following rather lengthy extract:—

It is often an extremely difficult thing to know when a patient who has suffered from an attack of insanity has recovered, and it is a very responsible practical question for me to decide when he should leave the asylum. Along with the other question, when he should be sent to the asylum at the beginning of the attack, it forms one of the delicate problems of practical medicine, both questions needing the utmost care, judgment, and experience for their right solution. It is surprising in how many cases the patients themselves or some of their relations think that either they were sent too hurriedly to the asylum, or kept too long out of it, that they were detained too long there, or sent out too soon. The brain is so infinitely delicate an organ in its organization and working, and so easily upset in some cases, its upsetting being attended with such terrible results to the man himself and to his relations that it is no wonder the doctor is often blamed for more than he is responsible for. It is marvellous the amount of self-control and cunning some really insane patients will exercise *for a time* to regain their liberty, and it is equally striking how home worries, the responsibilities of life, a little drink, or even the mere mental suggestions attending a return to the place where the attack had originally developed, will sometimes upset a

brain that had regained its equilibrium, and lead to another attack or to suicide.

The symptoms of mental disease are not necessarily new and different in kind from a man's normal mental qualities. They may be mere exaggerations of what is the man's natural disposition, or they may be mental effects without sufficient outward cause, that would not constitute insanity at all if there were some real causes for them. A man gets intensely depressed, and utterly without interest in anything, or capacity to follow his occupation, sleepless, and unable to take food, believing that he is ruined, and that life is not worth having. His sanity or insanity depends on whether there are real causes for this state or not. In fact, two men may exhibit exactly the same mental symptoms, and the one may be sane, while the other is insane. A grown man who exhibits the exact mental state natural in a child is reckoned of unsound mind. One of the most common of the early symptoms of insanity is a morbid suspiciousness, which depends greatly for its true significance to the mental physician on the temperament and state or circumstances of the man who exhibits it. A man who in his own family, and towards his old friends, begins to exhibit the suspicions that would be natural enough if he were among unprincipled enemies, is often showing the first symptoms of insanity. And so when in the stage of returning sanity, towards the ending of an attack, finding himself among strangers in strange circumstances, and, on account of his mental attack not being able to remember or realize how ill he has been or the necessity for his being under treatment, it is no wonder that a patient sometimes exhibits a morbid suspiciousness that prevents him fully trusting my good intentions towards him. Undue suspicion commonly means a bloodless, or diseased, or weakened brain, and the weak are suspicious among men and throughout the whole animal world. People become morbidly suspicious after illnesses, after paralytic attacks, in old age, and in insanity. They attach unreal importance to simple acts. I have many patients who think every simple thing I do or say is done "for a purpose" towards them. This is often one of the first symptoms when an insane patient is becoming consumptive. It causes unsociableness, and prevents them playing games, it cuts them off from sympathy, it retards recovery, and it often leads to suicidal attempts. It is very curious thus to see the same mental quality which is the sane man's protection and means of detecting evil become in the insane man the chief obstacle to the recovery of his health and reason.

One case illustrated the influence of want of blood in the brain in causing suspicious paralysis of all the social instincts. She was a little woman of 12 from the Cowgate. Her circumstances were very poor, she had had spinal curvature and threatened consumption. She was sent to the Infirmary, but they could make nothing of her. On admission she was a most pitiable object, deformed, emaciated, and bloodless, but fierce and suspicious. When kindly spoken to, she scolded, when petted she spat in your face. The head nurse compelled her to eat, laid her out on a mattress in the sun, and endured patiently all her abuse, not rendering railing for railing, but contrariwise. In a few months she got stronger, and ceased active opposition to treatment. Then she gained a little flesh and got civil. Then she got fat, and turned out a sweet-tempered little body, the pet of the Hospital, a female "Tiny Tim." As the blood came into her brain the sinful moods went out of it; as it got nourished, it became unsuspicious. All the moralities and virtues in her came and went with the blood in her brain. Probably she was only an extreme example of what happens to us all.

We had an unusual number of cases under treatment this year where the mental disease had been caused by advanced heart disease. The blood circulation of the brain had first become deranged in that way, and the mental working disordered thereafter. The patients where the mental disease is due to such direct physical causes are always interesting and instructive, as suggesting that we shall one day be able to trace still more of our cases of insanity directly to physical conditions of the brain, and be able to cure them, as was done in some of the heart cases, by direct medical treatment.

Of the 70 deaths during the year only six were due to phthisis.

There are many indications in this report of the continued energy, enterprise, and success which characterize the management of this asylum.

Fife and Kinross, 1887.—The following paragraph from Dr. Turnbull's report directs attention to a very important matter—the treatment of the poorest class of private patients :—

All the other cases were parochial, and from our own district. Several applications have been made during the year for the admission of private patients at low rates of board, but those had in every instance to be refused. I often feel that it is a great hardship for these cases that they cannot be received here, especially when they belong to the Fife and Kinross district; but in the present state of our accommodation, and in accordance with the regulations of the Lunacy Acts, we have no power in the matter save to refuse admission. In lunacy the State safeguards the interests of the poorest class of the community more stringently than for any other class, for at present it is compulsory to provide proper accommodation for lunatics receiving parochial relief, while it is not compulsory to do so for non-pauper lunatics. In Scotland the feeling has generally been that District Asylums, being built from money raised by rates, should receive private patients only while they have accommodation over and above what is required for parochial cases, and that it is not justifiable to assess a district for money to make the asylum larger than is reasonably needed for pauper patients. The private patients, therefore, would go to the chartered or royal asylums, which were in existence before the district asylums, and are, as it were, the property of the whole country instead of the district only, or to institutions founded by private enterprise. There can be no doubt that this is the natural and proper view in the circumstances. And yet it presses hard upon individual cases, especially on those who can pay only a low rate of board. The royal asylums often cannot admit them; and there is now in Scotland no private asylum which receives the poorest class of private patients. Such cases may possibly have paid rates in the district for years previously, and yet cannot get the benefit of the district institution in their hour of need unless they first become nominally paupers.

Four of the 29 deaths were due to phthisis.

Fife and Kinross, 1888.—In his report Dr. Turnbull says :—

Lately I had occasion to summarize the results obtained in boarding-out from the asylum; and I found that during the last six years the trial has been made in the case of 74 patients. Six (6) of these returned to the asylum before the expiry of their probationary period; and their names therefore were never taken off the Asylum books. Sixty-eight (68) cases were so far successful as to warrant their being discharged from the asylum register. Of these last cases, 13 relapsed afterwards, and had again to be received into the asylum after intervals varying from a few months to several years; the other 55 cases have remained out. These figures do not include cases in which the suggestion of removal from the asylum led the relatives to give the patient a trial at home and to take his name off the parochial roll altogether. They represent almost entirely a class of patients who had no near relatives able or willing to provide for them, and who would without doubt have remained as permanent residents of the asylum if steps had not been taken for placing them under suitable care with stranger-guardians. Had they continued to live in the asylum, our population would have been larger than it actually is by about 15 per cent.

A remarkable accident occurred on the morning of 19th May. The building was struck by lightning and a portion totally destroyed by fire. Only the

year before means had been taken to diminish such dangers. The hand-pumps proved of great service for use within the house. Most valuable of all in limiting the fire were the section walls, which had been put in about ten months previously, on the suggestion of Dr. Sibbald, Commissioner in Lunacy; and but for them the fire would in all likelihood have spread from end to end of the roof of the main block of the asylum, even before the roof could have been cut. The wood beams were burnt and charred up to the very bricks of the section walls.

Seven of the 30 deaths were due to phthisis.

Glasgow District.—Dr. Campbell Clark continues his systematic instruction of his attendants and nurses, and he evidently considers the results satisfactory. He says:—

In estimating the various factors which combine to secure good results in any asylum, an important point to consider is the staff of attendants; and I am happy to be able to say that much good work has been done by our attendants; and a great deal of our success is due to the patience and zeal with which they have attended lectures, tutorial classes, and other means adopted here during the last seven years, and to the trained knowledge and skilled observation which they have thus acquired. Every year is adding to the number of asylums where the special training of attendants has become a recognized necessity, and we have received much encouragement here by the kindly notice taken of our system of training by medical men in this country and America.

Twenty-five deaths occurred, and four of these were due to phthisis.

Inverness, 1887.—The prevalence of phthisis in this asylum continues to be deplorable, and points to the necessity of a minute inquiry as to the hygienic condition of the inmates. All contained in the following paragraph may be quite true, but it should be remembered that a hereditary tendency to phthisis is exceedingly common in lunatics, and also in the general population; and one is compelled to the conclusion that there must be some insanitary, and possibly removable, condition in the Inverness Asylum which affects the health of the inmates so lamentably. When one hears of phthisis prevailing in large buildings, the case of the Guards in the London barracks immediately comes to mind; and it is beyond dispute that people can live on wonderfully little food if they have sufficient fresh air night and day. We would strongly recommend that a chemist accustomed to the analysis of air in public buildings should be employed to carry out an exhaustive series of observations on the air of all the day-rooms and dormitories at different hours. When 18 deaths out of 47 are due to phthisis it is time to cease speculations concerning the prevalence of phthisis in the Highlands, and to take active practical steps to discover the real cause of the pest. If looked for carefully and intelligently it will be found.

The paragraph above referred to is from Dr. Aitkin's report, and is as follows:—

The number of deaths during the year has been large, amounting to 47, or 25 males and 22 females, or 10·6 per cent. upon the average number resident,

whilst the usual average death rate during the period the institution has been opened has been 8·3 per cent. This is due to the large number of fatal results from phthisis, these reaching 18, or 11 males and seven females, this being dependent on the accumulation of such cases, as in the years 1869 to 1870, and 1882 to 1883, when the proportions reached, during the latter period, were quite as high as during the past twelve months. As this disease also stands out so prominently as the chief cause of death amongst the population, reaching no less than 35·4 per cent. of the whole deaths occurring during the twenty-three years the asylum has been opened, more minute inquiries have been again directed to the history of those who have suffered from it. Thus, of the 11 males who succumbed to it, four were admitted suffering from the malady, and of the other seven it was ascertained in one case that phthisis existed in the family; in another a sister died of hæmoptysis, believed to be associated with lung disease; that in another, an epileptic, the mother died of "chronic lung disease," whilst in a fourth a brother died of phthisis. Of the seven females, four were admitted suffering from the disease, and of the others in one case a sister died of consumption in the asylum, and another is now dying from the same cause at home; and in another a daughter, sister and brother all died from this disease. In the other cases, three males, answers have not been returned to the inquiries put regarding them, but sufficient has been ascertained to show that the greater number of those who succumb to this malady either suffer from strong hereditary tendency to it, or are afflicted by it at the time of their admission. Undoubtedly, also, as pointed out many years ago at pages 18 to 21 of the Fifth Annual Report, the profound melancholia and low type of mental diseases, with the lethargic habits of many of the patients, increase the tendency to phthisis. Even, however, with all these influences, prejudicial as they are, it seems probable that the life of those sent here, labouring under this disease, has been prolonged beyond, or at least continued as long as that of other members of the family who have suffered from it at home. The whole question, however, is so deserving of investigation, and is so important, that it has been determined to undertake a more extended inquiry in reference to this point.

We would point out that post-mortem examinations seem to be the exception and not the rule; and that the tables are not those recommended by the society.

Inverness, 1888.—Seven of the 28 deaths during the year were due to phthisis. The report does not contain any indication that any steps have been taken to discover the cause of this very serious mortality, though Dr. Aitkin's report again discusses at considerable length hereditary tendency, etc. We observe that the General Board of Lunacy is in communication with the District Board on this subject and also regarding the clothing and food of the patients. Whilst it is, of course, important that Dr. Sibbald should point out that "with few exceptions the male patients wear the some clothing in winter as in summer, and the same clothing indoors as out of doors," it appears remarkable that this fact should not have come under the notice of the Commissioners during the twenty-four years they have visited the asylum.

Mid-Lothian and Peebles, 1883-8.—No report has been published since 1883; indeed, it seems as if none had been presented to the District Board.

It is to be hoped that under Dr. R. B. Mitchell's superintendence

the affairs of this asylum will be more fortunate than they were before his appointment.

The drainage is to be improved at an estimated cost of £700.

The Visiting Commissioner in October, 1887, directed attention to unauthorized changes in the dietary, and his remarks may be consulted by all having the direction of asylums. It is exceedingly important that the books should show exactly how all stores are disposed of.

Montrose.—The crowded state of the asylum rendered it necessary to discharge all unrecovered patients who could be otherwise provided for. Seven were transferred to other asylums and two to poor-house lunatic wards; twenty-four were sent to the care of relatives, and ten were boarded with strangers. Five of those who had been under the care of relatives were brought back within the year.

The first number of the "Sunnyside Chronicle" was issued on 21st June, 1887, and has continued to be a source of much interest to the patients, some of whom are the principal contributors.

A detached hospital is in course of erection. It will accommodate fifty of each sex. Dr. Howden gives a somewhat detailed description of it, with ground plan and elevation. The proposed arrangements seem to be exceedingly good.

Thirty-five deaths occurred during the year, and eleven of them were due to phthisis.

Murray's Royal Asylum.—In every respect this hospital continues to prosper, and, as stated by Dr. Sibbald, it is gratifying to find that the ability of Dr. Urquhart and the liberality of the Directors have thus received substantial acknowledgment from the public.

The following paragraphs, relating to points of more or less interest, are from Dr. Urquhart's report:—

During the past year, as heretofore, efforts have been made to return unrecovered patients to the care of their friends, when suitable cases occurred. I cannot report a very successful issue of these trials, for, of the nine so removed, only one has since recovered; one died; one is being nursed by her family through the infirmities of old age; one is living alone, and steadily going from bad to worse; one has been boarded out, and remains much the same as regards mental and bodily condition; and the remaining four have since been readmitted. These last were all removed contrary to my advice, and were manifestly unfit for private care. The injudicious course so pursued has had an unfavourable effect in retarding the convalescence of one lady, but the others are apparently unaffected by the change.

I am strongly of opinion that, except in a case absolutely necessitating the intervention of the Procurator-Fiscal under the Lunacy Acts, no obstacle to the discharge of a non-recovered patient should be offered by the asylum physician, further than such medical advice as would be proffered in the circumstances of bodily illness—presuming that the responsibility is assumed, in writing, by the friends removing the patient. It must be admitted that the removal of some of the most unpromising cases is followed by improvement, and even by recovery, and the widest experience but serves to illustrate and accentuate the fallibility

of medical knowledge. The onerous duty of weighing in the balance the advantages of greater freedom of action, and the tonic encouragement of self-restraint, in a convalescing patient, as against the irritating or enervating restrictions of continued control, must perforce remain with the physician, whose training in problems of mind best fits him to decide. It is his daily task to incur or to obviate risks in the interest of his patients.

The boarding-out of pauper lunatics and the private care of higher class patients have been much lauded of late years. The benefits of private care of the insane should be developed by hospitals such as this as part of their general establishment. I protest against the divorce of methods of treating insanity, and believe that our duty does not stop short at the asylum walls; but that our experience of lunacy should aid in the treatment of milder cases of mental disease, whether at Kincarrathie, or at Carnoustie, or in such homes in our neighbourhood as may be found suitable. This development of James Murray's Royal Asylum would fulfil the enlightened requirements of the age.

The occupations of the patients have been carried on as detailed in former reports. The work on the grounds of the asylum and Kincarrathie, the farm, and the artisan shops has been sufficient to employ twenty-two gentlemen on an average. I have found it a valuable check on the tendency to listlessness and idleness in the galleries to have a daily return from each charge attendant, giving, among other particulars, the names of those unemployed and the reasons for their not being at work. The stimulus to the interest of attendants in the whole work of their department, by thus exacting a daily consideration of the patients under their care, is an important recognition of the higher functions of those who are selected to deal with the very delicate organization of nerves and brains. I am not going to indulge in the usual grumble at the faulty material of which attendants are manufactured. While the world is controlled by monetary considerations we can only command the class we have. It is a question hedged with difficulties, and our present anxiety is to make the most of the men who are available under existing circumstances. Nurses, on the other hand, are less difficult to procure; but of late in Scotland the tide of emigration, owing to the ever-spreading agricultural depression, seems to be depriving the country of its best men. My experience of attendants leads me to employ the ploughman, with what remains of Scottish characteristics of that class, in preference to the old soldier or the unsuccessful artisan.

Perth District, 1887-8.—Fifteen patients died during the year and a post-mortem examination was made in every case. This is very creditable to the Medical Officers.

The evening school, which was begun last year, is reported to be an undoubted success. It is held on two evenings each week. On Wednesdays a small class of about 20 suitable patients receive careful individual tuition, and on Saturdays a much larger number, about 80 or 90, attend a lecture, of an easy and interesting character, on geography, history, biography, or some other instructive subject.

Various structural alterations are in progress to increase the day-room space. The means of recreation have been increased by the introduction of a billiard table and a harmonium.

Roxburgh, Berwick, and Selkirk.—This is perhaps the only asylum in the country where the population has steadily diminished during several years. Several private patients have been removed, but the diminution is chiefly due to the boarding-out of harmless cases. On this subject Dr. Johnstone says:—

Continued efforts are made to discharge from the asylum all such harmless unrecovered cases as can with advantage both to themselves and the ratepayers be provided for in private dwellings, and these efforts, in spite of many difficulties and discouragements, have, so far, been attended with considerable success. The power of discharging suitable cases on statutory probation (for various periods ranging up to twelve months) is largely made use of in this asylum. In other cases, where a shorter period of trial appears to be sufficient, the patient is sent out on pass for a period not exceeding twenty-eight days, the Superintendent having power to make such trials without the sanction of the General Board. The fitness of the patient for permanent discharge is thus practically tested, while his replacement in the asylum is provided for without the expense attending a sheriff's order, should he prove during his probationary period to be unfit for outside life. The striking benefits which have resulted from the adoption of the policy of discharging all such cases as have ceased to require asylum treatment are referred to by Dr. John Sibbald, Her Majesty's Commissioner in Lunacy, in the report of his last visit to the asylum, to which attention is directed. A distinct advantage has been conferred upon the patients, the institution has been freed from its overcrowded condition, the burden upon the parochial rates has been lightened, and the county assessment has been relieved from a threatened increase.

Scottish National Institution for the Education of Imbecile Children.—The report contains every evidence of prosperity and usefulness. The remarks by the Commissioners are extremely laudatory.

The Medical Officer, Dr. Leslie, reports that the ordinary epidemic diseases of children have been entirely absent, and he is convinced that this immunity, even at times when zymotic diseases have existed in the neighbourhood, is in a large measure due to the fact that the whole institution is now conducted on antiseptic principles, *e.g.*, the only soaps used for cleaning purposes are those charged with carbolic acid and other disinfectants.

Stirling.—This is a very interesting report, and if space permitted we should quote largely from it. We can speak from personal knowledge of the attention paid to the comfort of the patients, and the kindness with which they are treated. The supervision of epileptic and suicidal patients during the night has been improved. On account of a death from suicide, Dr. Maclaren has made such arrangements as he hopes will prevent such accidents in future. These are more restrictive than usually exist. Dr. Maclaren says :—

As the result of this occurrence, I was led to consider the advisability of adopting more stringent precautions for the safety of the suicidal patients. For some reason, probably on account of the large amount of out-door labour which our male patients enjoy, we have not felt the difficulty so urgently among the men. The arrangement has, therefore, meanwhile, at least, been introduced only on the female side. By day the suicidal patients are collected in one day-room, which is not, however, monopolized by them, and they are not allowed to leave it except in the special charge of an attendant. Their meals are served in their own day-room. At chapel and in taking exercise they are not allowed to mingle with the other patients. At night the suicidal and epileptic patients, and some others who require special attention, are collected in two

dormitories communicating with one another, under the charge of an attendant additional to the ordinary female night attendant. Although foreign to my present subject, I may mention that the arrangement has proved successful beyond expectation. There has been no accident to suicidal or epileptic patient since its adoption, but what has agreeably surprised me is to find that many patients who were so restless and noisy that they slept in single rooms, have become more orderly and less sleepless under supervision, and that some who for years had been regarded as incorrigibly filthy have abandoned these propensities, the arrangement thus securing a distinct and appreciable improvement in some of our most degraded cases.

Of the 43 deaths during the year six were due to phthisis and one to general tuberculosis.

Irish Asylums.

Armagh.—The extensive building operations are now complete, and are reported to be efficiently serving the purposes for which they were intended. The cost was about £23,000.

There were 51 deaths during the year. Of these nine were due to phthisis. It is explained that the health of many patients on admission was much reduced.

It is amusing to find one of the Commissioners pointing out that no provision for a surgery or medical store had been made. It is also pointed out that the day-rooms, especially for the men, are bare and ill-furnished.

Castlebar.—This asylum is seriously overcrowded. Plans for additional buildings have been prepared, but are objected to by the Board of Control, who think the enlargement insufficient.

Dr. O'Neill reports that in November, 1886, fever broke out in the house, and, notwithstanding that every precaution was taken to check its progress, as many as forty cases were treated in their own fever hospital. As fever was prevalent in the house for ten months, there is no doubt that it was due to overcrowding and the patients sleeping in a vitiated atmosphere.

Although the asylum was visited three times in the course of the year by the Commissioners, this very serious outbreak is not mentioned in their reports on the condition of the asylum and patients.

Clonmel.—Referring to the changes in the subordinate staff, Dr. Garner says :—

It is observed that not a few of the deputy attendants at the female side, when the higher and more responsible office of nurse becomes vacant, are reluctant to accept it. This arises, I think, from the small difference of pay existing between the two grades—in some instances only 3s. 4d. a month. As the head nurse of each division has a good deal of property under her charge, and is immediately responsible for the well-being of the patients under her care, the rate of pay is not excessive, but it becomes a question worth considering if the wages of the subordinate grade might not be lowered with advantage.

A most remarkable proposal, which we hope the Committee will have the wisdom not to adopt.

Cork.—This asylum continues to be overcrowded, especially on the female side.

Dr. Dwyer recommends that a school should be begun for the patients. He says:—

I know from considerable experience the advantages that accrue from well-arranged schools in similar Institutions.

It is a well-ascertained fact that moral and mental influences form important elements in the treatment of the insane; the body that is starved, finally dies; no less does the intellect become dwarfed when deprived of all that nourishes the mind.

There are a great number of patients for whom we cannot find employment, but schools would give them such occupation as would materially help their recovery, and thus increase our usefulness.

I will be grateful to the Board if they will kindly recommend the addition to the staff of this institution of a schoolmaster and mistress.

It should be remembered that education in school forms but a small part of a man's education, and that several very distinguished and ingenious men could neither read nor write. We honestly think that out-door exercise and employment are better for mind and body than playing with school books at 20, 30, 40 years of age.

Downpatrick.—It is recommended that the building should be further protected in the event of a fire, and that the means of egress for the patients should be improved.

Enniscorthy.—The number of dangerous lunatics admitted to Irish asylums has often attracted attention. An explanation of this abuse is given by Dr. Drapes. He states:—

There is still an undue proportion of committals by warrant as compared with the other mode of admission, but as long as the present system of things continues this is likely to be the case. The unjust parsimony of refusing to allow men a fee for examining patients and filling up the house form previous to admission is one cause for the preponderance of warrants which admits of an easy remedy. It is scarcely equitable to expect men to perform what is always a troublesome and very unpleasant business without any remuneration. But this is what medical men, who probably do more work for nothing than any other class in the community, are asked to do. It is small wonder if they evade the task whenever possible; and I think few of the public will deny that they are justified in doing so.

We are much pleased to find that

Last year, for the first time since the asylum was opened, *all* the patients during the summer were sent out in the grounds every day, and allowed to lie on the grass or enjoy a good bask in the sun, and the surrounding view.

Concerning music in asylums, Dr. Drapes says:—

Nothing cheers these patients or helps them to forget their troubles in an equal degree to music. It transports to another region for the time being, removes the cloud of depression, assuages grief, tranquillizes excitement, and rarely, if ever, produces the slightest ill-effect. But it must be music of at least a certain degree of culture, and this, I regret to say, we have not. Quite lately I had a travelling German band up for an evening to play in the hall. They played, as Germans mostly do, with good time, tune, and expression. The effect

was almost magical: and on others besides lunatics. All present—patients, attendants, visitors—listened with the keenest interest and enjoyment while different concerted pieces were played, and during the dances the usual tameness, and often apathy, quite vanished, and all joined with such spirit and "go" that there could be no question whatever as to the genuineness of the pleasure afforded, and though we have had occasionally theatrical and conjuring performances, at five or six times the cost, for the amusement of the patients, the unanimous verdict of all the listeners was that nothing ever gave them so much pleasure as this music, and their radiant faces told the same tale. This incident speaks for itself, and exemplifies in a striking manner the remarks above made. The position of music in the treatment of the insane is, and ought to be, a high one, and its importance can hardly be indicated without an exaggerated emphasis.

Kilkenny.—This report contains nothing worthy of notice, although it may be pointed out that the portion contributed by the Medical Superintendent occupies just one page.

Londonderry.—A severe epidemic of small-pox occurred during the year, attacking twenty-one patients and one attendant. Some of the cases were of a very severe type and five ended fatally. It is gratifying to find that Dr. Hetherington is able to pay a high tribute to the attendants who discharged their duties admirably and fearlessly during this most trying ordeal. Not one of them gave up his post during the epidemic.

Sligo, 1886.—The following is an extract from Dr. Petit's report:—

In my report for the previous year I called attention to certain changes which had been introduced by me affecting the moral treatment of the patients. These changes, which have had the cordial approval of both the Inspectors (see Inspectors' Reports, 28th June, 1886, and 19th August, 1886), have continued to work well. Out of a daily average of 407 patients, 295 slept in rooms the doors of which were left open; 100 slept in rooms the doors of which had been taken off, leaving only 12 who slept in rooms the doors of which were locked. Considering the circumstances under which it had been found necessary to confine the inmates in an asylum, this amount of liberty would seem risky, but the result has proved quite the opposite. Never was there such quietness at night, not to speak of the improvement to the ventilation.

On the other hand, the doing away with airing courts has had a most beneficial effect in tranquillizing those patients who formerly were confined in them during the day. This is most noticeable among the women; the shouting, screaming, and confusion which used to prevail have entirely disappeared since the walls of the yards were taken down and the patients sent out to the open grounds.

The amount spent on stimulants during the year was only three guineas. Concerning this, Dr. Petit says:—

Our expenditure in that direction has always been low, and while it does not seem to have had any effect upon the death rate, I am confident it has had a great deal to do with the good conduct of both attendants and patients.

Strictly speaking, is there not a *non sequitur* in the latter portion of the sentence? If stimulants are used *medicinally*, their use ought not to affect injuriously the conduct of the patients and attendants.

The success of the experiment of reducing the number of locked doors at night and the demolition of the airing-court walls is worthy of note. The entire removal of the doors of rooms occupied by 100 patients seems somewhat questionable. In the Report for 1887 there is nothing calling for notice, except that it extends to only half a page.

Waterford.—Various structural alterations have been effected adding considerably to the too limited day-room and dormitory space.

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2. *German Retrospect.*

By W. W. Ireland, M.D.

Is the Pineal Gland a Rudimentary Eye?

Professor Max Flesch ("Neurologisches Centralblatt," No. 19, 1888) combats the theory that the pineal gland of mammalia is a rudimentary parietal eye, and has ceased to have any function in the maintenance of the organism. He argues that the gland is no rudimentary organ—(1) because nerves enter into it; (2) because it gives a peculiar excretion; (3) because on the outer side, next the brain, there is an epithelial structure of a peculiar character.

He does not regard the gritty particles as a peculiar secretion, but considers the pigment specific. The pineal gland differs very much in form, consistence, size, structure, and quantity of pigment in different mammalia. The *résumé* of Dr. Flesch's paper is so short that it becomes obscure. The original paper is in the "Anatomischer Anzeiger," No. 6, 1888.

Brain-Centre for the Salivary Secretion.

Drs. Bechterew and Mislawski ("Neurologisches Centralblatt," No. 20, and "Centralblatt für Nervenheilkunde," No. 20, 1888) have sought for a brain centre for the secretion of the saliva. In this search they were not the first, for MM. Lepine and Rochefontaine ("Gaz. Méd. de Paris," 1875) have already pointed out that irritation of the anterior portion of the hemispheres by a weak galvanic current was followed by an increased secretion from the sub-maxillary gland, an abundant flow of clear saliva, which stopped immediately when the chorda tympani was cut. The point which was most excitable for increasing the salivary secretion was immediately behind the sulcus cruciatus, Ferrier's points 1, 2, 3, and 4; that in front of the sulcus cruciatus, running towards the olfactory lobe, also excited the saliva, but in a less degree. Braun, who repeated these experiments, found that while a galvanic current applied to this region in the brains of dogs caused abundant secretion of the saliva it was also accompanied by energetic contractions of the facial muscle.

Drs. Bechterew and Mislawski made their observations on curarized dogs. A canula was inserted into Wharton's duct and

the saliva received into a graduated vessel. On laying bare the brain it was found that a large cup-shaped region in front of the sylvian fissure, stretching across the anterior median and the three frontal convolutions, when touched by the electrodes caused plentiful secretion of saliva. In the lower part of this region a weaker electric current was sufficient to cause the saliva to flow. Only through this lower strip could the secretion of the parotid gland be stimulated. Section of the chorda tympani on the operated side at once arrested the flow of saliva.

The Brain Centre for the Movement of the Bladder.

Drs. W. Bechterew and N. Mislawski ("Neurologisches Centralblatt," No. 18, 1888) pointed out that little has been done to solve this question. Budge traced the excitation of the vesical contractions to the *crura cerebri*, and Rochefontaine pointed out four points in the sigmoid gyrus of which electrical excitement caused contraction of the bladder.

To elucidate this question Drs. W. Bechterew and N. Mislawski have instituted some careful experiments on dogs and cats. They found that by electrical irritation of the inner side of the anterior and posterior portion of the sigmoid gyrus contractions of the bladder were excited. They also found that a weak current applied to a point in front of the optic thalami could also cause vesical contractions, and this they regard as a reflex centre.

Results of Removal of the Thymus.

Dr. Awtokratoff, in a communication given to the Psychiatric Society of St. Petersburg ("Neurologisches Centralblatt," No. 24, 1887), detailed some experiments upon removal of the thymus gland. Of twelve dogs only one survived the operation for any length of time. Most of them died in nine or ten days—one sixteen days—after the operation. Two or three days after the removal of the gland there was a remarkable dulness and slowness in their movement, and a peculiar alteration in their gait. After this came on tremblings, which began in the hind legs and spread gradually over the whole body. The temporal muscles and the tongue were most affected. These tremblings were gradually succeeded by clonic and tonic convulsions. Some of the dogs had epileptoid attacks and died in the *status epilepticus*. There was also diminution of the bodily weight, while the temperature remained normal. There was considerable increase of the galvanic excitability in the peripheral nerves, and in two dogs there was found to be an increase in the electrical irritability of the motor centres in the brain.

In several cases there was acute catarrhal conjunctivitis.

From the time which elapsed till the appearance of the convulsions the author supposes that a poisonous substance is produced

in the organism by the removal of the thymus gland, which has a cumulative action.

The Weight of the Brain and of its Parts in Insanity.

Dr. Tigges' paper on this subject fills 125 pages of the "Zeitschrift für Psychiatrie" (xlv. Band, 1tes and 2tes Heft). The learned author comes to the following conclusions:—With a greater height of the body we have in general a greater weight of the brain. Tall people have heavier brains than short people. This increase of the weight of the brain with the stature is greater with women than with men; perhaps greater with the sane than with the insane. The relative weight of the brain to the stature increases with the stature, *i.e.*, the relative increase is greater with tall people than with people of middle size. The hemispheres, cerebellum, and base of the brain all increase in weight with the stature. In women the increase is regular, *i.e.*, all the parts increase in proportion to the body itself, though the relative weight of the brain becomes smaller.

On looking over the table of average weights collected by Dr. Tigges the heaviest brains seem to be Hanoverians; next comes the people of Westphalia and Baden.

The great weight assigned to the brains of Hanoverians come from the tables of Krause and Henle. The former observer gives 1,461 grammes for the average weight of males, and 1,341 for the females; the latter 1,460 grammes for males, and 1,300 for females. The number weighed by them is not stated, but they were brains of lunatics. Bergmann weighed 152 male and 90 female brains of Hanoverians, and gives the average weight as 1,372 for males and 1,272 for females.

The average brain weights of different nationalities is stated by Tigges in the following table. It is singular he does not give the average brain weight of Italians, for which, surely, there is material enough in the contributions of Morselli and Seppilli:—

	Males. grammes.	Females. grammes.
Hanoverians, Westphalians, and Badeners ...	1,433	1,284
Mecklenburgers	1,362	1,244
Different German Nationalities (Rud. Wagner)	1,362	1,242
Saxons and Swiss	1,354	1,240
Bavarians	1,362	1,219
Austrians (German)	1,297	1,157
Other Austrians	1,347	1,171
Russians	1,349	1,216
Scotch	1,423	1,267
English	1,326	1,200
French	1,340	1,222
All Europeans together (Davis)	1,367	1,204

Brains of Deaf Mutes.

J. Waldsmidt ("Allgemeine Zeitschrift für Psychiatrie," xlii. Band, 4 Heft) describes two brains of born deaf mutes. One was a man of 46 years; the other a girl of 19. Neither of them seemed to have received much instruction, and both were of low intelligence. The two brains had this peculiarity in common, that the third convolution and island of Reil were less developed on the left side than on the right. This is made clear by some lithographed plates, in which the left island is compared with the right, and with figures from a normal brain. The temporo-sphenoidal gyri were well developed on both sides in the male. In the female brain the third temporal gyrus is scarcely recognizable.

Deficiency of the Corpus Callosum.

Dr. Onufrowicz ("Archiv," xviii. Band, 2 Heft) and Dr. Kaufmann ("Archiv,'" xviii. Band, 3 Heft, and xix. Band, 1 Heft) describe cases where the corpus callosum was found wanting. Dr. Onufrowicz has collected twenty-seven instances from the literature of the subject, his own case making twenty-eight. On opening the cranium of a small-headed idiot, thirty-seven years of age, the hemispheres fell asunder for want of the connecting band of the corpus callosum. The olfactory lobes were also wanting, and the brain in other respects was highly abnormal. Instead of the gyrus fornicatus there were radiating sulci running upwards and outwards. The cases of the deficiency of the corpus callosum which have been published have as yet failed to give us a clue to the function of that organ, for in most of them there are important defects in the cerebrum sufficient to account for any mental fatuity; and there are at least four cases on record where the corpus callosum was wanting, and there was no trace of mental affection or deficiency observed during life. Erb has observed that in the adult, if the rest of the brain be healthy, almost the whole corpus callosum can be destroyed without any disturbance of motor power, of co-ordination, of sensibility, of reflex action, of sense, of speech, and without any noticeable injury to the intelligence. Dr. Edward Kaufmann contributed two more cases. The first an imbecile girl of twenty-four, in whose brain he supposes the organ was destroyed through hydrocephalus internus in the third or fourth month of fœtal life. The second was a man of forty-five, apparently sound of mind, who died of pneumonia. The structure in question was found to have been destroyed from softening following on an embolism of the right artery of the corpus callosum. Both these observers agree in pointing out that the tapetum, a longitudinal layer of fibres, is not properly a part of the corpus callosum. They consider that this layer connects the occipital and frontal gyri. Hence they give to it the name of fronto-occipital association bundle. In general it is so obscured

by the crossing fibres of the corpus callosum proper that its separate existence is difficult to observe, consequently it comes into prominence where the corpus callosum is absent. Both Dr. Onufrowicz and Dr. Kaufmann consider quite untenable the old view of Foville, revived by Professor D. Hamilton, that the corpus callosum is a decussation of the fibres of the anterior capsule.

Dr. O. observes that in cases of abscess within the hemispheres there is sometimes a secondary atrophy of the corpus callosum opposite the abscess. In such cases the internal capsule is more or less atrophied, but on the same side as the abscess, not on the other side. If Foville were right the atrophy should affect both corpora striata; but in our case, observes Dr. O., the inner capsules are, considering the smallness of the brain, normally developed, although there is no corpus callosum. In Dr. Kaufmann's case, also, though the corpus callosum was entirely destroyed, the inner capsule on both sides was found to be entire, and no alteration could be observed through the microscope. They, therefore, hold with Meynert that the corpus callosum is a commissure of identical regions of each hemisphere.

Virchow showed to the Berlin Association for Psychiatry (see "Centralblatt für Nervenheilkunde," No. 11, 1888) the brain of a child who died when six weeks old. The corpus callosum, as well as the anterior commissure, was wanting, and there was hydrocephalus internus. Other parts of the brain and cord were diseased and defective.

The Structure of the Spinal Cord in Microcephalus.

Alexandra Steinlechner Gretschnischnikoff has an elaborate paper on this subject, which occupies forty-one pages of the "Archiv" (xvii. Band, 3 Heft). The observations were made upon two cases of microcephaly. Sections of the cord were very carefully examined. It was found diminished in size and diameter, so that, as Theile pointed out, microcephaly and micromyelia go together. The diminution in size of the cord especially affected the pyramids, the columns of Goll, the ganglia of the anterior horns, and to a lesser degree the direct lateral cerebellar tract. The size of the posterior root zone was not affected. As no pathological explanation could be found, the authoress concludes that the portions of the cord thus found diminished in bulk are developed in correspondence with the brain.

Structural Characteristics of Criminals.

Dr. H. Kurella, with great ability, examines the different observations made in Italy and France upon the structural characteristics of criminals. Those who get within the grasp of the law fall into two classes—the occasional criminal, the man who, under peculiar temptation, or through political or religious theories, has broken the law; and the habitual criminal, whose whole life is at

war with society. Such criminals have a physiognomy of their own. Lombroso, who has studied them in a methodical manner, finds that certain defects are commoner with them than with any other class. The most frequent of these peculiarities seems to be prominence of the superciliary ridges, abnormal forms of the skull, and abnormalities of the wisdom teeth. The cranium in general is smaller, and there are often peculiarities in the convolutions. Individuals who bear a good reputation may have one or more of the peculiarities he mentions, but very few men bearing a good character have many such marks. Among 400 individuals of unblemished reputation only one presented the full criminal type. This unfortunate individual would have little chance of commencing a dishonest career, as he would be suspected at once. Marro, who examined 507 male criminals and 35 female criminals in great detail, comparing them with a hundred people of undoubted good character, found that in height and weight there was no great difference. The hands of criminals are longer; the form and circumference of the skull give nothing characteristic; the capacity of the cranium seems less, especially in the anterior part of the brain; the forehead is low and narrow; the chin strongly developed; the beard is often scanty or wanting; and the ears deformed. Left-handedness is found to be much commoner with criminals than with normal people. The majority of habitual criminals come from very young or very old parents; 79 per cent. of them were born in great poverty. They are characterized by a striking insensibility to moral considerations. Epileptoid types are common. There is a general stupidity, want of self-control, and disposition to rebel against the usual restraints of society, which constitutes a variety of imbecility. Writers like Lombroso, Marro, Moeli, Despine, and Larete have studied this form of derangement in prisons and penitentiaries, not in asylums. In fact, the classical symptoms of insanity, such as hallucinations, delusions, involuntary movements, and excessive passions, are generally wanting.

In this connection we may notice the paper of Dr. Schaefer on "The Question of the Committal of Insane Criminals," based on Sander-Richter's work "On the Connection between Insanity and Crime, Berlin, 1886," and the article of Dr. A. Pick "On the Discharge of Criminal Lunatics." They are published in the "Allgemeine Zeitung," xliv. Band, 1 Heft, and xliii. Band, 1 Heft. We regret that there is not space at our disposal for a review of their contents.

The Sympathetic System in Insanity.

Dr. Helweg claims to have made an important discovery in the pathology of insanity. His article, which fills eighty pages of the "Archiv für Psychiatrie" (xix. Band, 1 Heft), has been translated from the Danish by Dr. H. Kurella.

The following is a condensed account of his researches:—At the upper part of the cervical cord between the anterior and lateral columns he has found a wedge-shaped corner of somewhat harder tissue which readily colours with carmine. The base of the wedge is turned to the periphery and the point to the anterior horn of the grey matter of the cord. On being carefully examined this corner of tissue is found to be composed of the finest nerve fibres yet observed in the white or grey matter of the cord. They measure from 1-1·5-2μ in calibre. He has traced these fibres from the middle of the dorsal portion of the cord upwards through the pons to the inferior olivary ganglion to the middle of the tegmentum, and then to the anterior of the corpora quadrigemina and at last to the posterior commissure. Probably they end in the lobes of the brain. Dr. Helweg believes this to be a pathological change of the sympathetic system accompanying insanity. He has found this fine structure of nerve fibres in the bodies of 47 persons who had been insane, but could not find them in the body of any sane person which he had an opportunity of examining.

Neurasthenia and Pathophobia.

Professor Kowalewsky ("Centralblatt für Nervenheilkunde, No. 3, 1887") describes a case which fell under his observation in the Clinique of Karkow. He was 32 years of age, came from a neurotic family, and was from childhood of an excitable and enthusiastic temperament. As he grew up he became addicted to drinking and had frequent attacks of vertigo, pains in the back, and trembling of the hands. These attacks passed away without any treatment. When he was 18 years of age he learned that his teacher was dead; he went to bed and fell asleep. During the night he awoke and a series of questions came into his mind which he could not banish. The teacher is dead, what has happened to him after his death? I can also die. What will come to me after death? We shall be in another world. What is the other world? We are all from God; but what is God? Why is God not like men? These questions seized his mind with extraordinary force; he was full of fears for a whole day. The day after the patient poured a pitcher of cold water over himself and, as he expressed it, there was a parting. The world existed for him no more. He lived out of the world. He met people, spoke with them, went on his business, no one remarking anything special about him, and he still felt that the world existed no longer for him. This lasted for two months. The patient travelled to Kusk, there he awoke. The world was now once more for him, he was again a living man. From his 20th to his 27th year he drank much. He is married and had a little daughter, who died in the third month of eclampsia.

After a bout of drinking, followed by an interval of sobriety, he fell into a peculiar condition. He had vertigo; darkness came

before his eyes; his legs trembled, his heart beat. There was a feeling of constriction in the windpipe. He had to seek succour in the house of an acquaintance. After a time he quieted and walked out. For six months he remained in a nervous and disturbed condition, irritable, sleepless, starting at the least sound. These attacks occurred at times for two years, during which he was troubled with intense attacks of agoraphobia accompanied by melancholy. He was troubled with feelings of jealousy about his wife, which ceaselessly occupied his mind, although he recognized their groundlessness.

In this pitiable condition he sought refuge in the hospital. He was treated with cold douches on the spine sustained for ten minutes, a good diet, and muscular exercise. Under these conditions the nervous irritability passed away, the sleep became quiet, and he left the hospital quite well. The author considers that this case supports the view that neurasthenia is a common ground for a number of nervous symptoms and dominant ideas sometimes described as separate diseases.

Different manifestations of pathological distress like agoraphobia, claustrophobia, and Grübelsucht are but different symptoms of a common pathophobia.

The Duration of Life in Epilepsy.

(" Allgemeine Zeitschrift für Psychiatrie," xxxiv. Band, 4 Heft.) Dr. Köhler, of Hubertusburg, has made an inquiry into this subject principally based upon insane and idiotic epileptics. He has arrived at the following conclusions:—

1. Epilepsy shortens life.
2. This shortening of life occurs at a later age in females, while in males the most dangerous time is until 25 years.
3. The danger is greater with epileptic idiots.
4. Residence in asylums guards against dangers which are frequently met with in the outside world and in families.
5. It is highly necessary to place the epileptic at the earliest possible time in suitable asylums partly for cure, partly to moderate the attacks, partly to guard against the physical and ethical deterioration, and partly to preserve the power of working and of occupation.
6. Although the dangers which surround the epileptic seem to be the same in an asylum as outside, they are much greater in the outer world through complications and quarrels or through the use of alcoholic drinks, through sexual excesses, accidents during the attacks, and excitements of various kinds.

Resistance to Electricity in Exophthalmic Goitre.

Charcot gave prominence to a characteristic symptom in exophthalmic goitre which Romain Vigouroux had discovered. It consisted in a diminution of the resistance of the body of the

person affected by this disease to the passage of the galvanic current. This promised to be a valuable discovery, but Dr. Martins ("Archiv für Psychiatrie," xviii. Band, 2 Heft) was unable to find its existence save in cases where the skin was unusually soft, and this held good of individuals affected with any disease.

Dr. A. Eulenburg ("Centralblatt für Nervenheilkunde") has also examined the question, and although he found that in some cases the galvanic current could be passed more easily through the chest, the result was that there was no such general modification to the galvanic current as to make Vigouroux's observations of any diagnostic value.

New Method of Hardening Nerve Tissues.

Carl Benda ("Centralblatt für Nervenheilkunde," No. 16) describes a new method suitable for hardening portions of the nervous centres not bigger than the brain of a large dog. He puts them in a ten per cent. watery solution of the pure officinal nitric acid, and then, *without* further washing, he transfers the preparations into a solution of bichromate of potash. The strength is one volume of saturated solution of the salt in cold water to two volumes of water. The first quantum is renewed after some hours by the addition of a saturated solution of one volume to the same volume of water. For the brain and spinal cord it is necessary to keep them steeping for about eight days. A temperature of about 100 F. is recommended.

Preparations after this method give a well-marked definition of the nerve fibres with and without the axis cylinder, and they take on a fine colour with logwood.

Degeneration of Nerve Fibres.

Dr. M. Friedmann ("Neurologisches Centralblatt," No. 4 and 5) gives a description of some careful studies he has made on degenerations of the medullary matter of the brain after abscesses or sclerosed spots. His observations confirm the distribution which Meynert has assigned to the association bundle of fibres connecting the convolutions. Dr. Friedmann finds that in paralysis there is a diffused general wasting of the fibres which are thus sensibly diminished in numbers.

In No. 24 of the same periodical Dr. Friedmann treats of the degenerative process in the medullary matter of the hemispheres in general paralysis. He finds that Tuczek's discovery of the disappearance of the nerve fibres in the cortex is only a part of the general wasting of the nerve fibres in the whole encephalon which may extend to the inner capsule and the basal ganglia.

Dr. Friedmann describes four forms of degeneration of the nerve fibre.

1. The secondary degeneration of conducting tracts which follows abscess of the cortex, or centrum ovale, and which may extend into the cord.

2. Degeneration of a circumscribed spot. This may take the form of hardened patches as a result of chronic inflammation.

3. Diffused general wasting of the nerve fibres.

4. The degeneration may appear as a diffuse wasting of the fibres in the centre of the centrum ovale, implicating especially the radiating fibres and sparing the descending fibres. Thus this degeneration may be in some degree the opposite of form 1.

Pathological Alterations in General Paralysis.

Dr. Zacher ("Archiv für Psychiatrie," xviii. Band, 1 and 2 Heft) has examined 31 brains of lunatics through approved methods. Thirteen of these suffered from general paralysis; six from senile dementia; five from epilepsy and idiocy, and seven from functional disorders. As a result of his laborious researches he confirms the observations of Tuczek that in general paralysis there is a notable wasting of the nerve fibres. He finds, however, that this wasting is not peculiar to general paralysis, for it was also apparent in five cases of senile dementia, three cases of epileptic insanity, and two cases of insanity connected with drunkenness. In some cases the wasting took the form of simple atrophy, in others it took the form of varicosities with discoloration of the nerve fibres. In other cases, again, there was an irregular swelling of the fibres which took an irregular form, becoming crooked or rough in contour. These changes, which are difficult to describe in words, are illustrated by lithographic figures. In all cases of general paralysis examined he found alterations in the ganglion cells which was of different character from that observed in senile dementia.

Zacher agrees with Tuczek that in general the frontal lobes are first affected and found to be most deeply altered, but he does not agree with him in finding that the process of wasting always goes from the more superficial to the deeper layers of the cortex. In some cases be found the second or third layer most affected. Nor does he admit that the degree of wasting of the fibres furnishes a measure of the depth of the dementia. In two cases of idiocy Zacher observed a moderate disappearance of the nerve fibres, and in some cases of mental weakness he mentions an unusual fineness of the nerve fibres.

Microscopic Changes in General Paralysis.

Dr. P. Kronthal ("Neurologisches Centralblatt," No. 23, 1887) has made some careful studies on the pathological anatomy of progressive paralysis in Professor Mendel's laboratory at Berlin. He has used Golgi's method of treating and colouring his sections.

The principal results are, he finds, an enormous increase in the number of spider cells and an unusual number of vessels. The connective tissne is also increased. He is uncertain whether the spider cells have become more apparent in the brains of general paralytics by increasing the girth and the calibre of their branches, or whether they are metamorphosed from ganglion cells or lymph corpuscles. The ganglion cells themselves are seen to lose their proportions and the symmetry of their forms. The difference between the diseased and the normal ganglion is well shown in Dr. Kronthal's woodcuts.

Post Febrile Dementia.

Professor H. Emminghaus devotes twenty-one pages of the "Archiv" (xvii. Band, 3 Heft) to the study of a case of post febrile dementia. The subject was a student of mathematics in the University of St. Petersburgh, who took ill of fever, after which he fell into a hypochondriacal, melancholy, and restless condition. He left the house at night to wander about. On being sent to the Psychiatric Clinique he soon passed into a state of profound dementia, in which he required to be fed and cared for like an infant. He ceased to speak or to understand words, and paid little attention to objects of vision save that he noticed the approach of human beings. After being a month in the Clinique he died of pneumonia with minute abscesses in the kidneys. Sections of every part of the brain were examined with great care. The principal alteration observed was "cloudy swelling" of the protoplasm of the cells (albuminöse trübung), the nuclei being indistinct. This was held to explain the loss of functional power as the nerve fibres of the cortex showed not the slightest abnormality, though the processes of the cells were sometimes granular; the degeneration of the ganglion cells was found to be greatest in the middle layer of the cortical substance. Rindfleisch and Adler found a similar degeneration. In cases of psycho-motor excitement and mental weakness, Dr. Emminghaus thinks that if the patient survived he might have recovered the integrity of his mental faculties as the nerve fibres had not become diseased, and indeed some improvement in the patient's mental condition had been noticed before his death. The author observes that mental weakness following fevers lasting a longer time has ended in recovery.

3. *Dutch Retrospect.*

"*Over de Pathogenese der Epilepsie:*" *Nederlandsche Tijdschrift voor Geneeskunde, No.* 1. 1888. Dr. G. Jelgersma, Fourth Medical Officer at Meerenberg Asylum.

By J. Pietersen, M.D.

In an exhaustive and interesting essay under the above heading Dr. G. Jelgersma treats in the "Nederlandsche Tijdschrift voor Geneeskunde" regarding our present knowledge as to the pathology of epilepsy and epileptiform affections. He commences with a short historical sketch. The first who, after a laborious experimental investigation, pronounced a definite opinion as to the origin of this malady was Nothnagel. Tenner and Kussmaul had already before him worked in the same direction and furnished material which Nothnagel utilized for propounding his theory; but these investigations were not conclusive, and it was Nothnagel who first completed them. Most of these experiments were published at different times in Virchow's "Archiv;" the theory itself, fully elaborated, is to be found in v. Ziemssen's "Handbuch," wherein Nothnagel has written a monograph on the subject of epilepsy. Nothnagel found that he could by irritation of the pons Varolii induce contraction of the voluntary muscles of the body (placing in this region his so-called "contraction centre"), but he could not convince himself with certainty whether consciousness was present or absent in the subjects of his experiments. "The adoption of this hypothetical 'contraction centre,' a centre which under normal circumstances is never called into function, is a somewhat hazardous supposition; but if we regard him to mean this as a rendezvous for motor innervation we may, considering the degree of the then existing anatomical knowledge, let it stand —at the present moment we can, however, assert more definitely that such a theoretical centre does not exist. The ganglion cells of the pons may have many connections, but with the direct pyramidal tracts they are in all likelihood not united; and as regards the large motor ganglion cells in the region of the fourth ventricle these are bound together, like the usual reflex centres in the spinal cord, with the long motor tract. According to the existing anatomical knowledge of the medulla oblongata it is thus probable that the tonic and clonic contractions observed by Nothnagel in his experiments were not caused by the irritation of a circumscribed centre in the medulla, but that in all probability they must be considered as reflex contractions, or as contractions due to conduction of the irritation along the pyramidal tracts." Nothnagel further, to elucidate the symptoms of epilepsy, betakes himself to the vaso-motor centre in the medulla oblongata, irritation of which causes a narrowing of the blood-vessels in the pia mater and in the cortex cerebri. Both these centres in an epileptic

seizure appear in a condition of irritation, whereby 1. universal muscular contractions; 2. anæmia of the cortex cerebri, and by that means unconsciousness, are induced. This, in short, is sufficient to define the position adopted by Nothnagel. A relatively short time after Nothnagel had developed his theory as to the origin of epilepsy the experimental investigations of Ferrier, Fritsch, and Hitzig, and after them of Golz and Munk, became known. Nothnagel himself collected in a profound treatise the clinical data bearing on the localization of the functions of the cortex cerebri. Exner produced a like study, while Luciani for a short time demonstrated experimentally on this subject. With data such as these a new application of these recently-developed phenomena as to the type of disease named epilepsy arose. Observers knew that by irritation of circumscribed areas of the brain-cortex simple movements could be brought about; and thus Nothnagel in the declaration of his experiments was found to have omitted one particular, and that the possibility that the muscular contractions observed in epilepsy might be of cortical origin. Where, moreover, the irritant applied to the cortex was properly strengthened there ensued in like manner unconsciousness, which symptom thus also need not of necessity proceed from the vaso-motor centre in the prolongation of the spinal cord. He then proceeds:—"When we more closely consider the series of phenomena which follow in consequence of such cortex-irritation, then there is exhibited, in so far as can be followed in the higher mammals, a great conformity to the epileptic attack. The contractions became universal, there ensued complete unconsciousness, the animals experimented on frothed at the mouth, the froth being sometimes tinged with blood in consequence of injury to the tongue or lips by the teeth. The attack in point of time began shortly after the commencement of the irritation and continued for some time after its cessation. Munk in a comparatively recent publication has maintained that the contractions following cortex-irritation were at first clonic and subsequently tonic, just the reverse of the phenomena observed in an epileptic seizure. In none of the works of later experimenters have I, however, met with this again, so that the statement requires further confirmation. With regard to the question whether this attack thus experimentally brought about is actually equivalent to a genuine epileptic seizure there exists some disparity of opinion. Unquestionably it may be taken for granted that it simulates it in a greater degree than any other artificially induced convulsive seizure." By a large number of investigators, then, it is held that by irritation of the brain-cortex an attack can be produced which exhibits a great likeness to an epileptic seizure (Albertoni, Luciani, Unverricht, Franck, Pitres, Rosenbach, and others). This convulsion can be produced from any portion of the brain-cortex, most easily, however, from that known as the motor area; by irritation

of the non-motor centres the irritant must be stronger or of longer duration. For the production of such an attack it is of much greater importance that the irritant influence should be of longer duration than that it should be increased in intensity. With a weak stimulant there will at first be no result, but the seizure comes on and runs its course in the usual manner when persevered with for a while. The course of such a seizure, the irritant being the same in nature, intensity, and degree, is in every case similar. This concerns mainly the consecutive order in which the muscular contractions appear, and this order appears to be dependent on the classification and disposition of the centres for different muscular groups in the cortex. It was observed that when the contractions began in the orbicularis palpebrarum it proceeded next to the facial muscles, then to those of the jaw, neck, arms, trunk, and lower extremities, *i.e.*, in the proper consecutive order in which the different motor centres lie next to each other in the brain-cortex. At times small digressions were noticed, one of the muscular groups being omitted. These digressions were probably due to a lesser susceptibility to irritation of certain centres, perhaps also to the anæsthetic employed; at no time, however, were the orbicular contractions directly followed by those of the lower extremities. When a midlying centre was chosen as the starting point for the stream of irritation it was noticed that the contractions spread out in both directions, the consecutive order, however, not being so definite or so plainly followed. With a constant strength and duration of the irritation the contractions were limited to the opposite lateral half of the body, and thus gave a representation of an unilateral seizure accompanied with more or less complete loss of consciousness, thus clinically simulating the Jacksonian form of epilepsy. When the irritant was continued or increased in intensity, contractions of the same lateral half of the body ensued, beginning in every case in the lower extremity and slowly working their way to the vertex, thus in a reverse order to that noticed in the course pursued in the other lateral half. This transition to the same lateral half never took place unless all the muscle groups of the opposite lateral half were implicated in contraction. It is not with any certainty proved that this described seizure may be likened in full to an epileptic attack.

The above is a summary of the results arrived at by experimenters of recent date, and which we may accept as having been in every way fully confirmed.

(*To be continued*).

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The Quarterly Meeting of the Medico-Psychological Association was held at Bethlem Hospital on Friday, 16th November, 1888. The chair was occupied by Dr. Clouston, the President, and among those present were Drs. G. Amsden, R. Baker, Fletcher Beach, A. H. Boys, D. Bower, T. A. Chapman, E. Marriott Cooke, James Chambers, Edward East, Bonville B. Fox, J. S. Grubb, Theo. B. Hyslop, W. W. Ireland, W. J. Mickle, J. D. Mortimer, M. D. Macleod, H. Hayes Newington, J. H. Paul, Alonzo Stocker, S. A. K. Strahan, G. H. Savage, Percy Smith, D. Hack Tuke, C. M. Tuke, F. Wyatt Thurnam, Ernest W. White, J. F. Woods, E. B. Whitcombe, T. Outterson Wood, Lionel A. Weatherley, etc.

The PRESIDENT announced that Dr. Rayner had, through ill-health, been obliged to resign the General Secretaryship of the Association, and that the Council had requested Dr. Savage to act in his place until the next annual meeting, at which the permanent office of Secretary had to be filled up. They all most deeply regretted that Dr. Rayner, their most courteous and faithful Secretary, had had so to resign. The Council had decided that the next Quarterly Meeting should be a combined north and south meeting, somewhere in the North of England, in the month of March.

Dr. FLETCHER BEACH mentioned a case in which, poultices on tow having been applied to an imbecile boy, he had eaten a quantity of the tow, which was found in the descending colon after death. The important point was that at the time there was an epidemic of typhoid in the Institution, and the symptoms in this boy being exactly similar to those of typhoid, he was moved into the enteric ward and treated accordingly. He imagined the course of events was this—that the boy having, at different times, swallowed portions of the tow, the concretions came together in the descending colon and there acted as a sponge. As the fæcal matter descended it was absorbed by the tow and then, when peristaltic action came on, the material passed out and resembled very much the pea soup coloured material seen in cases of typhoid fever. No spots were found, but the same thing occurred in many other of the cases, which were all mild ones.

Dr. MACLEOD said that they had had a severe epidemic of typhoid, and he knew that every case of illness at that time, till the contrary was proved, was put down as a case of typhoid. In one case a woman had all the thermometric symptoms of typhoid for about two days, but as there was some doubt about the case a minute examination was made, and it was found that she had an ordinary abscess round the rectum, which they opened at once, and the fever subsided. There were many cases of inflammatory diseases, especially of the intestines, in which the temperature very much resembled that of typhoid fever.

Dr. BEACH said the boy lived for a fortnight after his removal to the Infirmary, and during the whole of that time the symptoms were those resembling typhoid. It was only at the post-mortem that they found the large concretion in the bowel.

Dr. FLETCHER BEACH exhibited a case of tumour and cysts of the cerebellum. The case was that of T. A. C., aged twelve years, a hydrocephalic imbecile, of low type, perfectly helpless, who lay in bed on his back with his head bored into the pillow. The parental history was good. He died suddenly, and at the post-mortem, thirty-four hours after death, the non-congested dura mater was found adherent along the lines of the coronal and sagittal sutures, and there

was great difficulty in removing the dura mater. On removing the dura mater the brain presented a uniform smooth appearance, due to the presence of fluid in the lateral ventricles. The sulci were quite obliterated. The convolutions were very simple, in some cases being nearly an inch in width. The brain substance was not congested. On slicing through the brain the lateral ventricles were found to be widely dilated, and contained a quantity of fluid which, with that which escaped on removing the brain, measured about a pint. On looking at the base of the brain the left lobe of the cerebellum was seen to be distended with fluid, and presented a light yellowish colour. The thin cerebellar substance gave way on examining it, and a thin-walled cyst containing fluid came out together with other fluid and collapsed as soon as it had escaped. The cyst-wall appeared to be of a fibrous texture. On examining the right lobe it was found also to contain fluid, but contained no secondary cyst. The fluid was of a straw colour, and differed from that contained in the lateral ventricles, which was colourless. On again looking at the left lobe of the cerebellum a somewhat firm tumour, about the size of a Brazil nut and pinkish in colour, was seen adherent to the inner surface. Both the brain and cerebellar substance were very soft, and the wall between the two lateral ventricles was represented by only a few threads of brain substance. The brain weighed 38½oz. After the fluid had drained away the cerebellum alone weighed 6¼oz. The cause of death was, no doubt, paralysis of the inhibitory nerve of the heart, due to pressure of fluid on its origin in the fourth ventricle. His reason for showing the specimen was, that although tumours of the cerebellum were fairly common, he was not aware that cysts of the cerebellum containing secondary cysts were equally common, and on that point he would like to have the opinions of the members of the Association.

The PRESIDENT, after expressing their thanks to Dr. Beach, asked for information as to the best mode of preserving a specimen temporarily for the purpose of exhibition to students. A weak solution of chloral in water did very well, and he had lately seen paraffin tried very successfully. He did not know whether it would preserve a specimen permanently, but it did not discolour or alter the specimen like spirit or one of the ordinary reagents.

Dr. STRONG said that glycerine, diluted one half, kept brain not only without changing colour, but prevented softening.

Dr. PERCY SMITH showed a spinal cord taken from a general paralytic. There had been paralysis on the right side associated with very marked aphasia. At the post-mortem they found hæmorrhagic pachymeningitis on the posterior surface of the dura mater outside, between it and the bone, and not inside the dura mater at all. He had certainly never seen such a specimen before, and Dr. Savage considered it very rare.

The PRESIDENT asked if the case was one of general paralysis of the ordinary cortical type.

Dr. PERCY SMITH said it was one of the cortical type. The reflexes were exaggerated.

The PRESIDENT said that he had, on at least two occasions, discovered the same lesion in cases of general paralysis, one being Westphal's tabic form of general paralysis, where the case had begun as one of locomotor ataxy for years before the symptoms of general paralysis had developed themselves. He thought a discussion on the origin of such hæmorrhage would be very interesting as to whether this hæmorrhagic deposit had anything whatever to do with inflammation or was a mere effusion of blood; whether it had a special connection with the peculiar conditions of blood pressure existing in the closed box of the skull and the nearly closed box of the spinal cord; and, lastly, what relation such false membranes had to the cerebro-spinal fluid and the obstruction of the lymphatic spaces.

Dr. MICKLE said the case brought forward was comparatively rare in con-

sequence of the situation of the hæmorrhage. In the majority of cases in the insane where there was hæmorrhage connected with the cord it was internal to the dura mater. In this case the hæmorrhage was immediately adjoining the bone. In the same way one occasionally found in the cranium hæmorrhage outside the dura mater, between the dura mater and the cranium, but such cases were distinctly rare, and in the vast majority the hæmorrhage was inside the dura mater. The majority of observers in this country held to the hæmorrhagic origin of the cysts in question, and for his part what he had seen usually appeared to him to be hæmorrhagic, but that in some the hæmorrhage had nothing to do with the dura mater, but took place from the soft meninges and meningeal veins. The vast majority of cases occurred in the cranial cavity, the spinal cord being only affected in a small number, perhaps two or three per cent. In reply to the President, he said in one form of chronic inflammation of the dura mater, it lost its usual smoothness, and had a ragged or rusty appearance. Here, in fact, there is slight oozing of blood, or a blood-stained state; but in the majority of the cases of hæmatoma, or (avoiding a term which committed one to the hæmorrhagic theory of the nature of the formation) of "arachnoid cyst," which he had seen there was not the particular state of dura just described.

The PRESIDENT asked what was the explanation of a case where in a thick layer of membrane between the dura and the arachnoid, formed chiefly of a non-stained material, they had a sort of semi-gelatinous, semi-fibrous material constituting the membrane without much hæmorrhagic stain.

Dr. MICKLE said that was simply due to the absorbent changes that had occurred in the past: the blood was diffused over the meningeal surface, at first the coagulated portion of blood remained, later the blood corpuscles broke down, they and their pigment to a large extent disappeared, and only some of the stain was left. Simultaneously the clot had become organized.

Dr. SAVAGE mentioned three cases of hæmorrhage certainly not outside the dura mater. In one there was pachymeningitis in the cervical region and also in the lower dorsal region, so that there was a clear space between the two in which there was no pachymeningitis or any new form of membrane. In another case there was general disorganization and very chronic changes; while in a third, a case of almost sudden death in a young paralytic, it was found there was a large fresh hæmorrhage pressing upon the cervical region producing very high temperature and complete paraplegia, so that there was hæmorrhage surrounding and compressing the whole of the cord, killing suddenly. He had, however, never met with a case like that exhibited. It seemed, however, that in general hospitals they were diagnosing more than was done in asylums, for only a short time ago at one of the general hospitals they pointed out to him a case in which they were quite sure that the patient was suffering from pachymeningitis of the cord.

Dr. MICKLE mentioned that some years ago Dr. Savage himself had published a case like that exhibited (laughter).

The PRESIDENT agreed that this affection had nothing whatever to do with any inflammation. It was improperly termed pachymeningitis, and their German friends had tended to mislead by giving it this erroneous name, even though they called it hæmorrhagic. That there was a hæmorrhagic element in most cases was quite certain, but that was not the only element. No doubt it had the closest relationship pathologically with hematoma, but the peculiar formation of that false membrane required very peculiar conditions of blood-pressure inside the cranium to produce it. He thought they were connected with sudden contractions and vaso-motor irritations of the blood-vessels of the brain which were themselves in a diseased condition. It was no doubt very rare indeed to find it in the folds between the actual layers of the dura. He said this paper opened up the very important question of so-called substitutionary or compensatory products within the cranium. They knew how very common

it was in shrinkages in every portion of the brain to have other structures thickened in the immediate region. There were great thickenings, and great incrustations of the bone in certain cases of brain atrophy. One of the important questions was this, especially in the apparent over-development of the neuroglia in sclerosis, did that result from the destruction and atrophy of nerve substance, leaving the neuroglia while all neurine had disappeared, or was it an actual over-development of the neuroglia which had by its pressure killed the neurine?

Dr. PERCY SMITH said in some respects this case corresponded pathologically with a case he brought forward some years ago—that of a youth of eighteen with an extremely atrophied brain. At the post-mortem very extensive hæmorrhagic cysts were found, but no sign of any thrombosis. Everything went to show that it was purely hæmorrhagic, not inflammatory in any way.

Dr. IRELAND did not see how there could be shrinkage at all in a closed skull. Where did the shrinkage begin if they admitted the brain to be a closed cavity?

Dr. MICKLE said the occurrence of those cysts in an atrophied brain was certainly a very strong argument in favour of the hæmorrhagic theory. One of the most frequent kind of cases in which those cysts were found was in senile dements who had had atheroma. That appeared to be in favour of the theory that the condition was hæmorrhagic, and would a little disfavour the fact that it was due to vaso-motor changes. The question so well raised by Dr. Ireland was one that would occupy a whole session to go into. No doubt the case brought forward was one in which the shrinkage must have been very gradual, allowing time for the cerebro-spinal fluid to be formed in increased quantity and fill up the space, or, as often happened, hæmorrhage occurring, the space became filled by the hæmatomata (or "arachnoid cysts") which had been formed.

Dr. SAVAGE asked whether it was common or not to find similar changes in the calvaria to those described by Mr. Plaxton. In one or two cases he had seen that over the pachymeningitic membrane there had been a very great amount of rugosity and in some cases a good deal of thickening of the bone.

The PRESIDENT thought they had all noted that peculiar change in the bone to which Dr. Savage referred, but whether such changes might be regarded as compensatory or irritative was a moot pathological question.

Dr. HACK TUKE exhibited the photograph of an idiot he had seen in the asylum at Ghent, of which Dr. Morel was superintendent. The prognathism was very extraordinary and the general appearance suggested the "missing link." Although a congenital idiot, he had, by dint of great care and education, acquired a certain amount of knowledge. He was now 34 years of age and, in addition to this singular physiognomy and lordosis, which was very marked, he had a tumour hanging from the neck, a molluscum fibrosum pendulosum, which had been removed since the photograph was taken. He (Dr. Tuke) would also pass round the photo of a microcephalic idiot he had seen at the same time, and of which Dr. Morel had most kindly sent him this photograph.

Dr TUKE then read a paper "On the Boarding-out of Pauper Lunatics in Scotland." (See Original Articles.)

The PRESIDENT said the Association was very much indebted to Dr. Tuke for his paper. He would now invite discussion upon it.

Dr. NEWINGTON said the rate of 13s. 7d. per week given as the rate of cost in the Woodilee Asylum could not be contrasted with the cost of pauper lunatics in England, which was much less.

The PRESIDENT said each English lunatic cost over £35 a year, including maintenance and capital expended, together with the instalments towards paying off debt.

Dr. MACLEOD said that the weekly charge for pauper patients at the East Riding Asylum, in 1887, was 8s. 9d.

The PRESIDENT said that unquestionably did not include the cost of the original building with the annual repayments.

Mr. LIONEL WEATHERLY asked whether supervision in Scotland was made not

only by the parish doctor and Deputy-Commissioner, but also by the Poor Law Inspector.

Dr. Tuke said that was the case.

Mr. Weatherly thought that would make a difference. In England they had no visitor except the Medical Officer, who made a visit once a quarter. Unless, therefore, a pauper lunatic happened to be ill, he would only be visited once a year. There was no other supervision at all. The guardians of the poor never visited the pauper lunatics.

Dr. Ireland said that as a rule he would lay little stress upon any visits which the guardians might make, and even those of the parochial doctors were apt to fall into a routine; but the inspection of the Deputy-Commissioners could be depended upon. The system of boarding-out ordinary paupers was first taken up by the Board of Supervision and they considered it a great success. The treatment of the lunatics, however, depended very much upon the character of the people with whom they were boarded. If very poor they were apt to try and make money out of the lunatics, but in some cases they were very kind. In order to arrive at a general conclusion it would be necessary to visit a great number of such cases, and it should not be known before hand that the visitor was coming. He had always thought it possible to teach idiots a great many things, even after they had grown up, but it could hardly be supposed that crofters and handloom weavers would take any trouble in the education of such persons boarded with them. He thought it possible that as the crofters acquired fixity of tenure and reached the condition of peasant proprietors they might refuse to take lunatics, and, therefore, it would be very difficult to extend the system. He should, however, recommend its adoption as far as possible for chronic demented cases, as he believed that on the whole they were happier when so dealt with than they would be in large asylums. He did not know that it was argued that they were better treated because the same thing held good with sane paupers, who, although they might be better fed in the poor-house, were relieved from its restraint when boarded-out in the villages.

Dr. Chapman said the difference between the English and Scotch system was very much a question of money. The usual allowance in England to an insane pauper at home was 2s. 6d. a week, and an allowance of 3s. or 4s. was quite exceptional. The official supervision was that of the Medical Officer of the Union, who visited once a quarter. It was, in fact, a branch of ordinary out-door relief. Such pauper lunatics were, as a rule, residing with their own relatives. With regard to statistics, they could be easily got out by the Commissioners in Lunacy, who had the quarterly returns from the several Unions, which only wanted tabulating. He did not think they would be able to get the special caretakers in England as they did in Scotland; the amount of accommodation in cottagers' dwellings would not admit of their taking in pauper lunatics. What was wanted was to let the patient's friends maintain him more frequently than they did, and to have better supervision to see that patients were properly taken care of. In that way the number of patients boarded out in England would be much increased, but it would not amount to such an extensive system as in Scotland.

Dr. Amsden said that having idiot children sent to him at six or seven years old, and finding that on their being placed among older patients they learnt all that was bad and nothing that was good, he thought it was most fitting that special provision should be made for such children. He went to the Commissioners to know what he was to do. The reply was that he was only in the same condition as many others. He asked if there would be any objection to his boarding these children out if he could find suitable caretakers for them among his attendants, and the Commissioners said that under the circumstances there would not. He then selected two children, a girl and a boy, age six and seven, and placed them with suitable attendants, and he was bound to say that the results had been most satisfactory. A great deal of trouble had been taken with the children, and they had improved and actually learnt something. He would

prefer their being in some asylum which contained all the facilities for teaching, but as a temporary expedient, at any rate, it had been a marked success. The visitation consisted of a visit from himself once a week.

The PRESIDENT said they would all agree in this—that their friend Dr. Tuke in going as he did first to Canada and then up to solitary villages in Scotland to investigate the condition of the insane, kept up the great philanthropic traditions of his family, and they were very much indebted to him for the trouble he took in that and other respects connected with the Association. With regard to the question of boarding-out, so full an account had been given that there was not much left to say. First, as to "single patients" and "specially licensed houses," he wished to say that all the houses that received any patients must be licensed by the Board of Lunacy and inspected. Then with regard to cost, though Dr. Tuke gave a very proper account of the cost of a boarded-out lunatic, he did not give the cost of the lunatics in the Scotch Asylums sufficiently high. The actual cost of every lunatic last year in the district asylums was £39, including board, maintenance, house room, up-keep of houses, and payment of debt on building; so that the real difference in cost between the two systems was £17 a year. No doubt if they could save on an incurable patient £17 a year, and at the same time make him sufficiently comfortable, it was a saving to the ratepayers that they were bound to endeavour to effect. They had three modes of dealing with lunatics. First, there was the asylum to which every patient was sent in the first instance. He was seldom boarded-out to begin with, but always sent from the asylum. There was next the lunatic ward of the poor-house. This was a ward which really was a sort of incurable annexe. The patients were first sent to the asylum, and if the doctor there considered them incurable he had to certify them as being no longer amenable to curative treatment. He had to look into the question whether they were dirty, paralytic, epileptic, dangerous, and if he could say that they were none of these things, but were easily managed, he certified them as fit to go to the licensed ward of the poor-house. If the patient was somewhat more sensible and of a better class and there was a likelihood of his occupying himself and enjoying a reasonable amount of happiness and not offending public decency outside an institution, he was then recommended as a suitable case for boarding-out. He wished to point out this fact as most important. He made no difficulty about recommending cases, the Inspectors of Poor made no difficulty in taking them, and he made no difficulty about receiving them back again if this was needed. If four cases out of six recommended, remained out he was quite well pleased, and was willing to receive the other two back again. He did not always pretend to know that a patient was suitable for boarding-out until he had been tried. He would accentuate what Dr. Tuke had said in regard to the supervision; in fact, as had been said, they would only carry out a successful system by taking trouble about it. If the asylum doctor, the Inspector of poor, the local doctor, and the Deputy Commissioner would all take trouble in the way of inspection and selection then this system would be a success, but not otherwise. It was essential to success that the three things, the poor-house, the asylum, and boarding-out, should be worked as part of one system. They all knew the expense that ratepayers had been put to in providing additions and annexes to asylums for the purpose of providing for a tremendous and yearly-increasing accumulation of incurable cases. At the Royal Edinburgh Asylum they provided for the pauper lunatics of Edinburgh by contract, and owing to the boarding-out system they had not practically increased in number for the last 15 years. He should like to know if that could be said of any English Asylum for a large city without the boarding-out system. That was a practical result. They had, in fact, increased in the number of admissions, but by means of sending out the incurable cases they had been able to take in all the recent cases, and had not required any addition to the wards for 15 years. This was absolutely the best statement he could make with regard to the success of the system. With regard to the effect on the asylum, he had been thus able to

concentrate his efforts on the hospital and admission wards. They had come to look on the asylum as more of a hospital, and to devote their attention to the hospital department and the admission department in consequence of being able to get rid of the quiet demented cases through the boarding-out and poor-house systems. They would never have a successful boarding-out system in England until there was an enormous increase in the Commissioners in Lunacy or their Deputies, the present staff being utterly inadequate for the proper performance of the duties of a boarding-out system.

SCOTTISH MEETING.

A Quarterly Meeting of the Medico-Psychological Association was held in the Hall of the Royal College of Physicians, Edinburgh, on the 8th November. The President, Dr. Clouston, occupied the chair, the other members present being Drs. Howden, Ireland, Carlyle-Johnstone, G. M. Robertson, Ronaldson, Rorie, Batty Tuke, jun., Turnbull, Watson, Yellowlees, and Urquhart (secretary).

The Secretary was instructed to write to Dr. Rayner, expressing the regret felt that he should have found it necessary to resign the duties of General Secretary of the Association; conveying to him their sense of the able and courteous manner in which he had ever performed the onerous duties imposed upon him; and their hope that he might long enjoy his well-earned retirement.

The following new Members were duly elected:—

R. Cumming, M.B., C.M.Aberd., Asst. Med. Off. Perth District Asylum.

E. H. Ezard, M.B., C.M.Edin., Asst. Med. Off. Royal Edinburgh Asylum.

T. Graham, M.D.Glasg., Med. Off. Abbey Parochial Asylum, Paisley.

J. Liddell, M.A., M.B., C.M.Edin., Assist. Med. Off. James Murray's Royal Asylum, Perth.

Dr. G. M. ROBERTSON, in the unavoidable absence of the author, read a paper prepared by Dr. Macpherson "On a case of Raynaud's Disease with Acute Mania."

Dr. CLOUSTON said that they were much indebted to Dr. Macpherson for his paper, which contained many points of great medico-psychological interest. All were familiar with vaso-motor changes, but this was a case where these changes had reached their acme. The coincidence of paralysis with coma was very striking.

Dr IRELAND said that he had never seen anything of this kind, but had often observed ulcers caused by slight friction, especially on the toes. These ulcers were extremely difficult to heal. He had applied electricity, but without much benefit. Low temperature was a very alarming symptom, and to obviate it he put the patient in a warm room and gave stimulating food. He also found that coffee raised the temperature a degree or two.

Dr. YELLOWLEES, in introducing a discussion on "The Use of Restraint in the Care of the Insane," said: It must be within the knowledge of all here that there has been going on in London during the last few months a good deal of discussion and agitation on the question of "The Use of Restraint in the Care of the Insane." I do not wish to make any remarks at all on the origin of that agitation, or to introduce any personal questions. One of the ablest and best known of our asylum physicians has been arraigned for the undue use of restraint, and he is arraigned by one of the best known and most distinguished psychologists in the

country, joint-author of the largest and best known of all the treatises on Psychological Medicine. It is very striking, gentlemen, that in the arraignment of Dr. Savage we have in direct antagonism two of the oldest representatives of this department of our profession on the one side, and some of its ablest present representatives on the other; and, more remarkable still, we have the Lunacy Commissioners of the day endorsing Dr. Savage's treatment in words that are very unusual, and not very consistent with former deliverances of their Board. These words are: "We do not overlook the fact that the admissions here of acute cases are very numerous, many needing control which may be more humanely applied by mechanical than by manual means."

Very striking, indeed, is this divergence of opinion — how comes it about? Apparently it is because the older men stand nearer the time when restraint was the most prominent feature in the horrible and cruel treatment which the insane used to endure. Their impressions of the evils which restraint represented are far more vivid than ours. They remember, as we cannot, how fierce the fight was before the emancipation of the insane took place, and they are ready on the least provocation to renew the combat and raise the old battle-cry. I think we who are further distant from that great revolution are able to appreciate its real character better than those who were in the fight; they were so close to it and so involved in it that they cannot even now look at the whole matter so calmly as we at this distance may. They fought in order that insane people should no longer be chained, or controlled by mechanical means; but that was a small part of the victory they gained. It was not a question between restraint and non-restraint at all. Those became representative words, but they only represent a small part of the field which that blessed revolution covered. It was, in truth, a mighty step in the progress of humanity, by which the victims of neglect and cruelty became the objects of thoughtful kindness and of medical treatment. After their victory the old feeling remained strong. They told us that however needful restraint might be under special circumstances, they could not, would not, and dare not use it. They had seen so much of its evil that nothing would compel them to use it again. One can understand and sympathize with that feeling in those who had witnessed the horrors of the restraint period; but if this unphilosophical and unwise view were correct, it would be a conclusive reason against the use of chloral, or opium, or hyoscyamine; we would then never use or order alcohol because men had been drunkards, nor exercise because men had died from over-exertion, nor food because men had been gluttons. It is useless to reason with people who take such extreme views, and who deem the abuse of anything a proof that it has no legitimate use. Even men who knew that they ought in the interest of an individual patient to

use restraint refused to adopt it under the influence of that feeling which they could never forget. I learned from one of the English Commissioners that about twenty years ago he saw a patient held down with two attendants night and day because he was determined to destroy his eyes. He remonstrated with the superintendent, saying it was at once kinder and safer to fasten the man's hands. The superintendent replied that he had never used restraint, and never would. The result was that in spite of constant watching the man succeeded in destroying both his eyes. Possibly there are persons equally obstinate still. They would justify restraint for (so-called) "surgical reasons," to prevent further injury to the ruined eyeballs, but with strange inconsistency would utterly condemn it if used to *avert* the mutilation! Restraint would be deemed utterly wrong while the patient was only making desperate attempts to injure himself, but perfectly right the moment he succeeded!

Another unfortunate result of that strong feeling was that the use of restraint under any circumstances was regarded as an opprobrium. To have it entered in the asylum records that you had to restrain a patient was to hold yourself up to obloquy. I have experienced such censure from medical journals before now. Some strange methods, it is said, were sometimes taken to avoid restraint being entered in the register, and stories were told of an attendant sitting against a door instead of locking it, or of patients being undressed and put to bed, or held by relays of attendants, because seclusion or restraint must not disfigure the journal of the Institution! I think anyone who gives way to this feeling does a morally wrong thing. If he believes the use of restraint to be the best thing for his patient he has no right to shirk it, whatever his feelings may be, or whatever criticism it may entail.

I cannot assert too strongly that the restraint which is merely a part of neglect and cruelty, and which is used as the easiest way to get rid of a troublesome case for the time, is a totally different thing from the restraint used by the physician after calm deliberate conviction that it is the best thing for the patient under his care. Restraint when dictated by harshness, irritation, or mere convenience is utterly wrong, but restraint when part of a well-considered plan of treatment may in special cases be perfectly wise and right. My demand is that we should all be free to exercise our own judgment as to the cases where restraint is needful and justifiable. I suppose nobody will question that restraint is justifiable in surgical cases; and if so, then the use of restraint depends on the reasons for it and on the judgment of the medical attendant.

As to *forms of restraint*, it is curious that there should be such difference of opinion between the Lunacy Board of Scotland and that of England as to what constitutes restraint. In the South, padded gloves are regarded as restraint, and must be entered as

such. In Scotland they are not regarded as restraint at all, even if locked on. This fact has a direct bearing on Dr. Savage's case. Dr. Bucknill writes: "Eighteen patients were restrained in one month." This did sound very startling, but I had the curiosity to ascertain *how* these patients were restrained, and to find out what dreadful things had been done to arouse the wrath of Dr. Bucknill. I found that ten of these patients wore gloves, which in Scotland would not be regarded as restraint at all. Four wore side-arm dresses with sleeves sewed, so that their hands could not get free. Two of them had a dry pack, and the other two had what is called a modified dry pack, which seems not a very severe form of restraint. To me the significance of the whole case was greatly lessened when I found that ten out of the eighteen simply wore gloves. My own opinion as to the value of gloves is very decided. Four of my patients wore gloves last night, and I do not see a shadow of a reason why if gloves seem desirable the patient should not wear them. Of my patients who wore gloves last night two are women, chronic maniacs, who at times destroy everything they possibly can, and at most serious expense. We make no trouble about using gloves for them. If they cease their efforts to destroy, the gloves are taken off, and if they begin they are at once put on. The two men are advanced general paralytics, mindless and bedridden, who get no rest from continual efforts to destroy, but who rest quietly, or at least harmlessly, with gloves. In these cases I see no reason why the gloves should not be used. It is fantastic philanthropy that talks of such treatment as a grievous and terrible evil, whether you call it restraint or not.

I think the Scotch Commissioners are right in not regarding gloves as mechanical restraint, when the hands are otherwise free. If they are included, then locked boots and any article of dress specially fastened, and even the waist belt which prevents an excited woman from denuding herself, are in the same category. The line must be drawn somewhere, and our Commissioners have wisely drawn it at gloves. Their use should be recorded, of course, but not under the heading of restraint.

In what cases is restraint justifiable? Of course much depends on the personal opinion of the medical attendant. I think it is justifiable (1) *in cases where the suicidal impulse is intensely strong.* I have no hesitation whatever in putting gloves on these patients for their own safety and the protection of the attendants in charge of them. It often makes all the difference to the patient between lying gloveless in quilted blankets and untearable attire, or sleeping in all his wonted comfort but with gloves on. I have not a doubt as to which is preferable. (2) *In cases of extreme and exceptional violence.* I think the use of gloves often wise in such cases. Once or twice I have used side-arm dresses, although not for many years. I well remember the beneficial effects resulting

from the use of such a dress in the case of a man who thought he was Jesus Christ, and that all around him doubted his divinity. He was a furious and most violent maniac, and it was a choice between endless seclusion or getting him out of doors with the other patients under partial restraint. I had a dress made for him, and the result was very satisfactory. In a short time he found his divinity unheeded, the violence abated, and he became as manageable as the others. (3) *In extremely destructive cases.* I do not think that a heap of rags over the room is a thing to be proud of or for the patient's good. In cases like those already mentioned there is no reason why gloves should not be used, especially if the patient knows better, and shows a certain amount of deliberate intention in the destruction. To those I add (4) another class of cases where I believe we could sometimes avert death if we used restraint, I mean *the helpless and incessantly restless patients* who, day and night, roll about the room, and thus slowly kill themselves, just as truly kill themselves as if we allowed them to commit suicide. These patients must be kept still if we are to save their lives. The protection bed which Dr. Lindsay of Perth, thought so highly of may be useful in these cases instead of restraint. I remember two cases where this mode of treatment was extremely valuable. I have a restless lady patient at present who by night rolls about the padded room or wanders feebly about the ward by day, knowing no rest or peace, and unless the restlessness subsides I must make a protected bed for her, or roll her up in blankets and secure her in that position, which Dr. Savage calls a dry pack. Either course would be perfectly right.

The alternative to mechanical restraint is manual restraint; and just because attendants are human it is neither so constant, so effectual, so patient, nor so safe. There is, of course, one way in which you could avoid all restraint and save all trouble ; you could prostrate and paralyse the patient's energies by some potent drug, and call it "treatment;" but this is the way to dementia or death, not to recovery. I am no advocate for mechanical restraint, and in ordinary cases regard it as unnecessary and wrong, because not the best thing for the patient. I think it needful only in very exceptional cases, but we can accept no dictation as to its use. We claim entire freedom of action for any educated and conscientious physician who is trying to do the best for his fellowmen. We are not only entitled, we are bound, to do what we deem best for our patients irrespective of tradition or prejudice. It is simply absurd to say that we have the power to dose a patient with the most deadly drugs, but can *never* be permitted to fasten his hands or to swathe him in blankets and secure him in bed.

Dr. Ireland said he had listened to Dr. Yellowlees with great pleasure. He thought the present generation was wanting in nerve, and shrunk from employing some remedies which proved useful in some cases, because of their abuse in

the past—such as blood-letting, the use of antimony and mercury. He said there was certainly a feeling against restraint, and they did not like to enter many cases in the register, because it might be thought that there was too much excitement in the asylum. He agreed with Dr. Yellowlees that the abuse of restraint had left the impression that it was a bad thing, and also that in restless cases the patients should be restrained, as they were wearing themselves out by constant motion, and that they shouldn't allow the patient to die merely to gratify a dislike against the use of restraint. He recalled Dr. Yellowlees' vigorous defence when attacked on this question several years ago, and had kept in mind his powerful expression, "Is a heap of rags a thing to be proud of?" At the same time he would warn young physicians to be cautious against making themselves martyrs, and to put restraint on an occasional lunatic. The reaction was sure to come. If a man placed his wife, or son, or daughter under the care of a physician in an asylum, and through needless risks, or want of restraint, the patient was suffered to commit suicide, or was killed, or seriously injured, he thought it scarcely a sufficient reply on the part of the medical superintendent to say: "My system of treatment implies an extra amount of risk. I think it advisable to add to the delusions of the insane the farther delusion that they are at liberty." He was strongly of opinion that each physician should be allowed to use his judgment in regard to the use of restraint.

Dr. GEO. M. ROBERTSON expressed his sympathy with Dr. Savage. From his knowledge of Dr. Savage's views and practice he was sure that he had not used restraint unduly. He thought it hard that the man who was doing something to cure his patients should be abused, when it should be the man who did nothing. On this account he held Dr. Savage deserved the sympathy of the Association.

Dr. TURNBULL said the meeting was much indebted to Dr. Yellowlees for his interesting remarks on the very important subject of the use of restraint in the care of the insane. In their discussion of the subject it was to be expected that the speakers would bring forward mainly the points on which they differed from Dr. Yellowlees in order that these might be more fully considered. While differing from Dr. Yellowlees on some points of detail (to which he would refer), and especially in not being prepared to go quite so far in using restraint as Dr. Yellowlees does, he (Dr. Turnbull) wished to say that he agreed most thoroughly and emphatically in the general line of argument and in the general conclusions which Dr. Yellowlees had put forward. Though there was a strong feeling against the use of restraint in asylums, it was a fact that in some general hospitals restraint was used on a much larger scale and more indiscriminately than in asylums, and was never recorded in any register or officially known. But remembering the history of restraint it was advisable that its use in the control of the insane should be carefully recorded, and the records be subject to inspection. The first point on which he differed from Dr. Yellowlees was in the use of the gloves not being regarded as restraint. Dr. Yellowlees said the Lunacy Commissioners had stated that the use of the gloves did not constitute restraint, and acting on that ruling he (Dr. Yellowlees) did not enter it as such in the statutory register of restraint, though he kept a record of it for his own information in a daily register. This was entirely new to him (Dr. Turnbull), and he could not subscribe to the view that the use of the gloves did not come under the head of restraint. In a recent case he had placed a locked glove over the bandages of a fractured finger, and made an entry in the statutory register for each day on which the glove was so used. The Commissioner at his next visit discussed with him the question of this being restraint, and remarked that, though he would not have said it was necessarily wrong if the use of the glove had not been registered, he thought it was better to have the entries made. He (Dr. Turnbull) therefore, held that the use of the gloves should always be regarded as restraint, and entered as such. As to the class of cases in which restraint was advisable, he agreed with Dr. Yellowlees in using it (1) in

surgical cases, and (2) in suicidal cases in which observation by the attendants was not sufficient to guard against the suicidal impulse. In these latter cases he preferred mechanical restraint to manual force, as often the latter could not be resorted to without grave risk of the patient being injured in his struggles. In one of his female cases the patient had a persistent desire to force her hand into the vagina and tear the parts there, producing serious bleeding. This could be prevented during the day by the attendants; but when the patient was in bed at night the dangerous habit could not be effectually guarded against by simple supervision by the attendants. In this case he used restraint at night for a period of three months, but did not use it at all during the day. He did not agree with Dr. Yellowlees in considering destructive habits an indication for the use of restraint. In such cases he thought the restraint of the muscular action sometimes had an irritating or prejudicial effect on the patient's condition, and, even at the cost of some torn clothing, he preferred to do without it.

Dr. Yellowlees remarked that he did enter cases treated by gloves, but neither he nor the Commissioners considered that the entries should be in the restraint column of the register.

Dr. Urquhart said that he would express his pleasure in the dignified, able, and impressive speech in which Dr. Yellowlees had addressed them that day. He was entirely of one mind with him in this matter, and would neither add to nor detract from his conclusions. While they acknowledged with gratitude—and founded upon the experience and labours of the men who had shown that asylums could be conducted absolutely without restraint and seclusion—they must guard against becoming "hide bound" by tradition. They had secured a greater liberty with increased knowledge, and claimed to use that liberty as educated physicians responsible for the well-being of those committed to their care. He found that the register of restraint and seclusion in Murray's Royal Asylum showed an apparently erratic use of these means of treatment. In 1887, for instance, there had been no shower baths; in 1888 already 28 had been recorded. Entries varying from year to year with the necessities of the cases under treatment might (as the late Dr. Gilland would have said) prove a record of the conscientiousness of the medical superintendent; they would certainly not prove the absence of minute consideration of the indications of treatment of individual patients. It was surely the very irony of fate that had selected Dr. Savage, one of the apostles of increased liberty, as the type of a retrograde physician. He (Dr. Urquhart) had been pilloried as a recusant Scotsman in the "British Medical Journal" for using the protection bed. Well, that case was at the point of death, rest in the recumbent position was plainly indicated, and, with no more doubt than a surgeon applying a splint to the broken leg of a fractious child, the protection bed was brought into use. That lady was now at home in perfect health, the happy mother of her family, and such a result assuredly sufficiently justifies recurrence to forms of treatment of proved value. That was not the time to dilate upon the manifest evils of restraint, and the objectionable results of seclusion; but the time to insist upon the necessity of a well-judged middle course, the time to demand freedom of action for the asylum physician regardless of the sentimental prejudices of the day.

Dr. Howden said he used restraint and seclusion whenever he thought it necessary, and did not consider himself bound by any rule or by public opinion in the matter. There were cases in which he considered both seclusion and restraint necessary, though in his own experience these were very few.

Dr. Rorie said in his practice the only means of restraint he used were the gloves, and these only in extreme cases. He formerly used seclusion very freely, but since going to the new asylum he had abolished it altogether. No patient was ever allowed to be in a state of seclusion—that is in single bed-room with door shut—after ten a.m. In extreme cases it might be necessary to use seclusion, but he would be sorry to have now to resort to it. He looked at the shower bath in the same way. Although sometimes beneficial, there was always a tendency to abuse it.

Dr. RUTHERFORD said he regretted not having been present while Dr. Yellowlees was speaking. He thought there were certain cases in which mechanical restraint was necessary, and in such hands as Dr. Yellowlees he would be inclined to support and uphold its use. But still, he thought the principle was deleterious, because it was so liable to abuse, and that they should, as far as possible, do without it. He had occasionally used a camisole, and occasionally gloves, but in the cases of only four or five patients in twenty years. He did not like to use seclusion, but preferred to put the patient in a room with an attendant. There were rare cases in which, for the good of the individual patient, restraint might be beneficial, but, as the principle of restraint was deleterious, being so liable to abuse, everything should be done to avoid its use. We were all very much at one on this question of restraint, and the difference seemed to him to be only in the different way in which each expressed his opinion. It came to this—use restraint when necessary, but only when necessary, and he is the best physician who by dint of good treatment and nursing, best succeeds in making it unnecessary *in each individual case.*

Dr. WATSON agreed with Dr. Yellowlees that it ought to be left to the individual opinion of the physician attending the case to decide whether or not restraint should be used. In some cases of restlessness, restraint was one of the best means of procuring sleep. He had invariably entered gloves in the book as restraint, but as the Commissioners did not insist on it, he would be sorry to do anything of the kind in future. Restraint did not look well in the blue book, unless in urgent cases.

Dr. JOHNSTONE could not agree with Dr. Rutherford, who, while admitting that he felt it right to use mechanical restraint in certain cases, held that the principle was deleterious. It appeared to him that, if the practice was right, the principle must be right also. He considered that mechanical restraint was a perfectly legitimate means of treatment, and that they should have the same freedom and discretion in using it as they had in using opium or castor oil. The outcry against restraint seemed to him very unreasonable. Society could not exist without restraint, and the insane required it only more than the sane. In treating disease, as members of the most philosophical of professions, they should not allow themselves to be swayed or governed by any fashions of the moment. The physician should know no fashion. He had simply to treat each case on its own merits, and do whatever was best for his patient. Restraint, airing-courts, seclusion, etc., might be right or wrong, but their unpopularity had nothing at all to do with the question. He had listened with much pleasure to Dr. Yellowlees' remarks, and he agreed with him that mechanical restraint might wisely be employed in extreme cases of violent excitement, suicidal attempts, destructive habits, and restlessness. In his own somewhat brief and limited experience, however, while being perfectly prepared to use mechanical restraint whenever necessary, he had found that cases requiring it rarely occurred.

The PRESIDENT said that on the whole Dr. Yellowlees' address was the most eloquent and the most comprehensive he had been privileged to listen to on this subject. In regard to the opinion of Dr. Bucknill, and other men of his age and standing, about Dr. Savage's mode of using restraint in the Bethlem Asylum, he thought they had passed into a different era from that in which those gentlemen had been trained. They had passed into a more scientific era, and were free from the passions and prejudices of Conolly's great struggle, and, while sympathizing with their philanthropic views, he thought their medical ideas to a large extent wanting in courage and scientific basis. In fact, they were largely obsolete. He held, emphatically, that a medical question like this should not have been opened up by a medical man in the "Times" newspaper. They must almost all agree with most of Dr. Yellowlees' general principles. The real difficulty lay in the application of those principles to individual cases. A man with any self-respect as a physician must claim liberty to use any means he may think fit to promote the recovery and prevent the death of his patient.

In doubtful cases few men agree as to what exactly ought to be done, but all concur that restraint is certainly justifiable in surgical cases. They should, in suicidal cases, as far as possible endeavour to effect a cure without restraining the muscular motions, but there were exceptions. He had used restraint to prevent attempts at suicide, in and out of asylums, with and without the patient's consent. In extremely violent cases he would commonly apply seclusion rather than restraint, but in less violent cases hard work in the fresh air was the better, and the more scientific treatment. They thus provided a physiological "outlet" for the excessive motor energy of the cortex. He thought "destructive" cases more doubtful than any of the other classes mentioned by Dr. Yellowlees, and that nothing was better for them than hard work. In "restless" cases he thought restraint should very seldom indeed be used, not even the "protection" bed. A simple protection of mattresses on the floor was enough, or a padded room. Restraint was unquestionably liable to abuse, and they, therefore, ought to use it with caution. The beginning of it, like whisky on some people, tended to make them crave for more. It irritated some patients very much indeed. It was a very repulsive sight to see insane patients severely restrained, and in an asylum with modern contrivances, trained attendants, and medical skill, other means should in nearly all cases be taken first to effect a cure, rather than the use of restraint. In some exceptional cases, however, restraint was the only remedy, the most humane resource, and the most scientific application of the principles of modern brain therapeutics. If by it we could really conserve energy or save life in any case, he would be deeply blameworthy who did not use it. But let it be used like any other surgical or medical measure, after careful consideration of the whole consequences, and to the very best judgment of the man who ordered it. On no account should it be allowed to be used but by direct medical order in every case, and on every occasion of use just as a dangerous medicine is used.

IRISH MEETING.

The Quarterly Meeting of the Irish Branch of the Medico-Psychological Association was held at the King and Queen's College of Physicians, Dublin, on Thursday, November 29. Drs. Ashe, Ringrose Atkins, Maziere Courtenay, Drapes, Eustace, Finnegan, Garner, Hethrington, Molony, Nolan, Conolly Norman, Patton, and Thornley Stoker attended.

Dr. Eustace having been called to the chair, and the minutes of the preceding meeting read and signed, the Secretary (Dr. Conolly Norman) read a letter from Dr. Clouston apologizing for his inability to be present and to preside at the meeting.

Walter Bernard, Fellow of the King and Queen's College of Physicians, Ireland, Visiting Physician to the District Asylum, Londonderry, was proposed for membership by Dr. HETHRINGTON, seconded by Dr. MAZIERE COURTENAY, and elected.

Dr. DRAPES read a paper on "Psychology in Ireland."

Dr. RINGROSE ATKINS said that the *fons et origo* of the comparative absence of scientific work in Ireland was the absence of organization. He suggested that the medical officers of asylums should endeavour to arrange to meet together in a friendly way, examine each other's work, and compare notes. Dr. Atkins also suggested that each member should take up some particular topic and endeavour to work it out, the results to be published subsequently in a form like the West Riding Reports. An increased number of assistant medical officers would be needed if any really good medical work was to be done.

Dr. FINNEGAN complained that post-mortem examinations were absolutely discouraged by the authorities in Ireland. He was of opinion that clinical assistants would be a useful addition to the staff even where there are assistant

medical officers. He suggested quarterly meetings at the various district asylums.

Dr. COURTENAY reminded the members that the question of quarterly meetings elsewhere than in Dublin had been formerly very fully discussed, and the notion had been given up as impracticable. The fact is that the train services and other facilities for going about in Ireland are so limited that country meetings would take more time and money than could be afforded.

After some remarks from the CHAIRMAN and Drs. PATTON and HETHERINGTON,

It was proposed by Dr. FINNEGAN, seconded by Dr. RINGROSE ATKINS, and resolved, "That at least one in every year of the ordinary quarterly meetings of the Irish Branch of the Medico-Psychological Association be held at some asylum in Ireland, the name of which shall be decided on at the previous quarterly meeting."

Dr. MAZIERE COURTENAY then read a paper on "A Case of Foreign Body in the Œsophagus." (See "Clinical Notes and Cases.")

Dr. ASHE suggested that if in this case a metallic probang had been used the existence of the foreign body might have been detected.

Dr. ATKINS pointed out the enormous importance of post-mortem examinations, as exemplified in this case. Without an autopsy this woman's case could never have been cleared up. He referred also to the numerous examples in which fractured ribs have been first detected on the post-mortem table, and quoted many cases from his own and others' practice of unexpected "finds" in autopsies.

Dr. CONOLLY NORMAN said, in confirmation of Dr. Atkins' experience, that it might be laid down as an axiom that one never failed to find something that one did not expect at an autopsy, even if one generally found what one did expect.

Dr. THORNLEY STOKER asked whether, in Dr. Courtenay's case, there was any contraction of the œsophagus to account for the manner in which the chestnut was "pocketed."

Dr. COURTENAY, in replying, said there was no such contraction.

Dr. NOLAN then read a paper on "A Case of *Folie à deux*."

Dr. RINGROSE ATKINS, in reviewing the theories that have been propounded to account for *folie à deux* and *folie communiqué*, referred to his report on the literature of the subject in a recent number of the "Dublin Journal of Medical Science." He also spoke of cases in his own experience; two members of a family who were afflicted with identical forms of insanity at the same time, though one was in Ireland and the other in America; two members of a family, not twins, who were both sufferers from spinal curvature, and who each were able to tell when the other was in pain from this affection, though one was in London and the other in Ireland.

The CHAIRMAN and Drs. DRAPES, ASHE, and FINNEGAN also spoke.

Dr. NORMAN, in replying for Dr. Nolan, pointed out the singular resemblance in many details between the present case and that described under the title of "An Insane Family" in Vol. xxix. of the "Zeitschrift f. Psych.," to which Maudsley has referred. Perhaps the most remarkable of the recorded cases of *folie communiqué* is that of the Adventists, described by Folsom, to be found in "Journal of Mental Science," Vol. xxvi., p. 258. But Dr. Nolan was of opinion that there was something more in this case than mere contagion. He adopts the view suggested by Dr. Needham in his article on "The Contagiousness of Delusions" ("J. M. S.," Vol. xxvii., p. 57), which some of the facts in this case seem strongly to support, viz., that the insanity of these two brothers is the inevitable result of their similar mental (and bodily) development and the influence of common environments. Thus the cases are really "evolutional," and resemble each other in a similar way, though in a greater degree, than two cases of hereditary insanity of puberty. They are not, now at least, cases of "psychical infection," however infection may have helped to originate the ailment.

Dr. Conolly Norman then read a paper on a new hypnotic, "Sulphonal."

Dr. Drapes, who had used sulphonal, spoke favourably of it. With reference to the difficulty of administration, he suggested rubbing it up with light carbonate of magnesia, with which it forms a tolerably manageable mixture.

Dr. Thornley Stoker spoke highly of paraldehyde. He specially praised its promptitude of action.

Dr. Ringrose Atkins laid stress upon the favourable report of sulphonal as producing natural and dreamless sleep. Paraldehyde produced, at least, in some cases, a troubled sleep full of hideous dreams. He certainly had seen in a few cases the effects referred to by Krafft-Ebing.

Dr. Garner spoke of the singular efficacy of paraldehyde in cases of alcoholism.

Dr. Drapes then read a paper on "Hyoscin in Insanity."

Dr. Courtenay stated that he had not used hyoscin, but had tried hyoscyamine, and found it most uncertain and dangerous.

Dr. Conolly Norman said that he had tried hyoscin (the hydriodate), but with perfectly negative results. He was disposed to think that he had, through excessive caution, used too small doses, for he had had the same unpleasant experiences of the kindred drug which Dr. Courtenay had referred to, and he had become timid in consequence.

The proceedings then terminated.

The members subsequently dined together at Jury's Hotel, College Green. Among the invited guests were the President of the King and Queen's College of Physicians, the President of the Royal College of Surgeons in Ireland, the President of the Royal Academy of Medicine, the Inspectors of Lunatic Asylums in Ireland, etc.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held at Glasgow, August, 1888.

PSYCHOLOGY SECTION.

(*Continued from p.* 468.)

[We are indebted to Dr. Urquhart for carefully revising the English of the paper by Professor Benedikt. Dr. Urquhart has himself been to Vienna and examined the instruments invented by the Professor.—Eds. J.M.S.]

The Clinical Results of Craniometry and Cephalometry. By Moriz Benedikt, of Vienna.

Craniometrical and cephalometrical researches have given rise to many misunderstandings; but, as I hope to convince you, those misunderstandings are unjustifiable.

My inquiries on this subject have been directed to these points—Firstly: Is the skull of a normal shape or not in cases of anomalies of the motor or intellectual brain functions—congenital, hereditary, or acquired in infancy, and in cases of abnormal moral actions, rooted in the complicated psychology of incorrigible criminals? Secondly and conversely: Are the brain functions normal or not in cases presenting anomalies of the shape of the skull?

I shall now relate to you some of the results of these inquiries, drawn chiefly from cases of insanity, epilepsy, hemiparesis and

paraparesis spastica infantilis, congenital and infantile blindness, hereditary nervous diseases in general, etc., etc. I have already published these results in various papers, and principally in my "Craniometry and Cephalometry;"* but as I have reason to believe that these publications are not yet known in England, I bring them before you to-day.

I make it a rule to pursue these researches with the utmost caution, only deducing from cranial abnormalities the *probability*, not the *certainty*, of anomalous cerebral functions. The *probability* is justifiable even in cases of abnormal skulls where the hereditary predisposition remains latent, for many individuals die before the tendency has become apparent; but these cases must be regarded as negative. On the other hand, we must acknowledge that negative results do not prove that the tendency does not exist. It is always possible that we can find nothing abnormal, because we have not sufficient knowlege to enable us to search and observe; and often a negative result only proves a negative endowment in the observer. But in order to obtain the greater security for affirmative assertions, I count every negative result as such.

Only these measurements are unequivocal that are less than the smallest normal dimensions. This is indisputable with reference to the whole size of the skull, but it is also unequivocal in reference to measurements of special parts of the skull which are less than the smallest normal dimensions. We must recognize that a special part of the brain belongs to every special part of the skull, and, therefore, we must acknowledge that any deficient evolution of a special part of the skull corresponds to a deficiency of a special part of the brain and consequently there must be a deficiency in the function of the latter. A general compensation of the head in weight and volume cannot equalize a special deficiency.

It is an unequivocal symptom if the total volume of the brain be abnormally small. This needs no discussion. We can judge of it sufficiently well by measuring the sectional linear measures and the three great circumferences. Only a few abnormal individuals are characterized by such general leptocephaly, but when it is observed, we can affirm *à priori* that the brain function must be abnormal and we must inquire if the motor, intellectual, or the moral functions be disordered.

Frequently leptocephaly is found in all forms of cerebral palsies and spasms, congenital or acquired in infancy, such as hemiplegia and paraplegia spastica infantilis, in idiopathic epilepsy, in idiocy, &c.

The leptocephaly in these cases is often hemilateral. Sometimes the motor disturbance consists of a marked *unhandiness*—a sort of motor imbecility. The verification of intellectual deficiency in such individuals is not difficult, although in some

* Urban und Schwarzenburg, Wien, 1888.

there may exist only a lack of intellectual endowment. There is great difficulty in verifying moral deficiencies, except in prisons, the more because the immoral manifestations are the result of combined motor, intellectual, and sensory powers.

We must not forget that many perversities of brain functions (psychopathic or criminal) may remain latent for a long time, and that many die before these become evident, and that, *e.g.*, the criminal tendency may remain dormant by reason of social relations, etc.

I have already recognized the importance of some other exceedingly under-typical dimensions. I shall first refer to that of the median arch of the parietal bone. When that is observed, we may be very sure that the individual is epileptic. I have never found the shortening of this arch in a normal individual, but I have found it in forgers.

It is very interesting to observe nature's power of compensating for the shortening of this part of the skull. Where she cannot lengthen the chord (tendon) she elevates the arch,* and so the parietal part of the frontal bone is elevated at the same time, and we thus find the form of "flat-heads."

When the compensation of the arch is complete, the individual is exempted from anomalies of brain function; but in general we recognize, in consequence of this formation, that we have to do with an individual of a neuropathic family, and we often find that the offspring of such cases are also neuropathic.

I have also obtained positive results where a shortening of the median frontal arch has been observed—such being generally epileptic or in other respects psychopathic.

Another form of frontal leptocephaly is that which may be called trigonocephalic. Exceedingly rare forms have for a long time excited the curiosity of the anatomist, but there exist many intermediate degrees which have evaded observation, although of great importance from a clinical point of view. They are more easily recognized by inspection than by measurement, because the horizontal frontal arch is extremely difficult to measure during life, and also because the relation of the frontal transverse diameter to the greatest transverse diameter does not give a complete idea of the above-named shape of the skull.

As the shortening of the median arch, the trigonocephalic form is found on epileptics; but, in my experience, it is also observed in cases of suicidal melancholia and intellectual disturbance.

The shortening of the median and transverse linear measurements and of the inter-parietal arch is in strict relation with congenital or infantile blindness.

A disproportionate evolution of the occipital part of the skull

* Nature is the greatest architect; the growing of all these arches is in intimate connection.

to the parietal and frontal part, the latter being inferior, is a very characteristic symptom of degeneration.

It is a sign of a degenerated individual when the height of the skull is found to be under-typical.

I have also demonstrated that a positive and negative excess of the cephalic index is indicative of degenerated and pathological cases, the skulls of whom are exceedingly short when they are broad, and correspondingly narrow when they are long.

It has long been known that the higher degrees of asymmetry are of great importance, but very equivocal. Even the highest degree of asymmetry may have no pathological significance, because there may exist along with it a complete compensation. But we must admit that a greater evolution of one part is no true compensation for the degeneration of another part.

More important than general asymmetry is a homogeneous asymmetry of both the halves of the skull—in such a manner that all parts of the one half is inferior to all parts of the other. A lower degree of evolution of the right is more common than of the left side. This form of asymmetry loses its pathological significance when the excessive evolution of the one half is the result of compensation for existing hydropsy of the same side. We find asymmetry owing to unequal hemilateral evolution in cases of hemiplegia spastica infantilis, epilepsy, and all forms of degeneration. It is generally found along with obliquity of the transverse diameters—and most often of the auricular.

It is interesting to observe that the measurements from the terminal points of this oblique auricular diameter to the root of the nose is in many cases equal on both sides. That, at first, seems surprising, because we have a triangle with two equal sides, the base of which is the auricular diameter, where we should have expected *à priori* a triangle with two unequal sides. But, because the size of the two halves of the skull is unequal, the median line from the apex of the triangle is not vertical to the base, and cuts the oblique diameter into two unequal parts. On the shorter side of this diameter its end must be situated further behind so as to equal the corresponding line of the other side. That both lines are equal proves that nature endeavours to compensate for the narrowness by lengthening the lateral frontal-auricular line.

This fact of equality of the naso-auricular lines of both sides of asymmetrical skulls, proves that linear measurements are not fitted in general to determine asymmetry.

One of the most important and characteristic symptoms of degeneration and pathological diathesis is the shortening of the post-auricular part of the sagittal axis of the skull. I have observed this formation most commonly in prisons, and there chiefly on persons convicted of acts of violence. It is also found among cases seen at the bedside. A much more frequent than the bilateral form of this post-auricular shortening is the hemilateral, where the shortening is principally on the right side. In

such cases it is generally combined with greater narrowness of the right half of the skull, or at least of the frontal-parietal part of this half.

It is, as far as my observation goes, a very common thing to find high degrees of this hemilateral post-auricular shortening in idiopathic epilepsy, and in the inmates of asylums and prisons.

Well, as this form can be measured and demonstrated on skulls by a perfect cathometric method and easily and distinctly as it can be found by simple cephaloscopy, it is difficult to demonstrate it by measurements, on heads. I seek to introduce some practical method which might be used by medical men.

Naturally, this hemilateral post-auricular shortening in cases of asymmetry is combined with and causes obliquity of the transverse auricular diameter.

I would also direct your attention to a shape of skull which, though rare, seems to be very significant. It is a marked bilateral elevation of the region of the sagittal suture. In normal individuals on both sides of this suture there are very flat arches that run gently into the neighbouring arches. In individuals possessed of this diathesis these transverse arches are short, with a very short radius ; and, instead of forming where they meet a flat angle and a large cupola, they form a narrow and a high one. With this form is generally combined a lateral *proclivity* of the skull. It is doubtless the result of premature occlusion of the sagittal suture, and I have never seen an individual with this formation that did not display a profound perversity of brain function. Naturally, it is often combined with a shortening of the parietal bone.

The interest of the medical profession has been greatly excited by one of these variations from the normal. I refer to the receding forehead (flying front). We are impressed by this shape, not only when the median frontal line is inclined posteriorly, but principally when, at the same time, the frontal arch is very short. This inclination of the frontal line is of absolutely no importance when the arch is of normal length and when it does not prevent the evolution of the parts lying behind.

The shortening of the arches of the skull is naturally of more importance than the shortening of the linear measures, which can be and is easily compensated for by nature by the lengthening of their arches. That shortening of the arches is very important in all cases in which the total volume of the skull is not exceedingly small and the capital diameters are within normal limits, but in which the special linear chords of the hemispherical parts are relatively less than the great diameters and the relations between these chords and their arches are yet more diminished. This proves an inferiority of evolution of the hemispheres in proportion to the whole mass of the brain, and is characteristic of degenerated individuals in prisons and asylums.

I conclude with the observation that there are very seldom

"diathetical" persons (*i.e.*, those with congenital or infantile perversity of brain function or disposition thereto) without characteristic abnormality of the shape of the skull; and, *vice versâ*, that we very often find perversity of brain function or disposition thereto in individuals with abnormally shaped heads.

I show here a number of drawings of normal and abnormal skulls, together with a table giving some idea of the accuracy of my methods of ascertaining the intimate details of construction of the specimens. These drawings and documents are copies from nature itself. They are not opinions. It is my only wish that the medical profession in Britain should interest itself in these researches. A true criticism of facts and of conclusions can only be made by unprejudiced research—never by declamation.

Dr. FRANCIS WARNER read a paper on "Methods of Examining Children in Schools as to the Development and Condition of Brain."

Dr. WARNER stated that it was practicable to examine the children in a school as to their development and brain state by visible signs observed. Two classes of signs were described—*a.* The proportions and form of the body, the head and the separate features, obvious bodily deformities or signs of disease, and the signs of nutrition. *b.* The movements and balances or postures of the body and action as seen in the face, the eyes, and other parts, typical forms of which had been described and classified by the author. Thus the signs indicating nervousness, exhaustion, frequently recurring headaches, or slight chorea, had often been detected in school children, as also the signs of low-class brain action. Examples were given of facts seen when observing children in schools, and cases were quoted showing that in many instances visible defects were found to correspond with defects in character. The author urged that attention should be directed to these cases, and that means should be taken to ascertain their proportion among strong and healthy children. Dr. Warner concluded by moving: "That a committee be appointed to conduct an investigation as to the average development and condition of brain function among the children in primary schools, and that their report be sent to the Editor of the Journal; and, further, that the committee should have power to add to their number and to apply to the Council for a money grant."

Dr. IRELAND, Prestonpans, said the question brought forward by Dr. Warner was one which had already excited much interest, and was sure to excite still more. They had already three kinds of abnormal children who required special instruction—the blind, the deaf, and the imbecile. All these, it was known, required a different style of instruction from ordinary children; but the compulsory clause of the Education Act had turned up another class, viz., backward children. The Education Act had made the passing a matter of consideration for the teachers; and the system compelled them to push on the children and get as many passes as possible. These backward children were a great trouble, and because these could not be pushed forward to pass that diminished the amount of money handed to the School Board. These children might be put into three classes. The first of these was nervous children, which were more common in large towns than in Scotland—for really, after all, Glasgow was the only very large city in Scotland where the size of the town had a depressing effect on the population. He had, however, seen these nervous children in other places, and very recently he knew of a case where a child cried for half-an-hour after coming from school, and also of another case where a child was punished for what was mere nervousness, the result being that great harm was done to its future life. Sometimes these cases were ultimately found in asylums. Another class was the dull or stupid children. These needed

instruction very much, and generally were in regular attendance at school, because they were soft and docile, but could not learn. These children were humiliated both by the teachers and by their companions, who knew they would not resent ill-usage. Then there was a third class of these children—the truants. A great many of these had no abstract ideas of intellectual culture, and in Prestonpans, the children of the fishermen were anxious to get out to sea. If these could be got to enter the army or the navy, they would be good, useful people. His impression was that there were a great many children who could not be got to learn reading or writing, and that without it they would not be the worse in the future. Indeed, if only 80 or 90 per cent. of the children learned to read and write, that would be enough for all practical purposes (a laugh).

Dr. GAIRDNER—That is an awful heresy.

Dr. IRELAND said he believed that compulsion might be necessary in large towns, but he really thought the old Scotch system of education was better than that of the present day. The question under Dr. Warner's motion would be, how many are there of these children, and were there a sufficient number to be taken out of the Board Schools and placed in a special school where a special course of instruction could be imparted. Even if it were found that these children numbered only 1 per cent. of the population—and in large towns that would be a considerable number—it would be sufficiently large to enable a school to be established especially for their education. In his opinion, the Education Act was not well framed, in that it forced children of five years of age to be sent to school. That was a very great mistake, for it was known that children did not all come to maturity at the same age. He was strongly of opinion that it would be necessary either to have an inquiry so as to eliminate these backward children, or to give up the compulsory clauses in the first two or three years of school life (applause).

Dr. HACK TUKE said he would support Dr. Warner's motion because of what he had seen in Germany two years ago, where there were intermediate or auxiliary schools for such children. These schools had been very successful in Germany. He thought the proper plan was to have an examination made of the children in schools by competent persons, because the success of the inquiry depended very much on the way in which it was conducted.

Dr. YELLOWLEES, Glasgow, said his only difficulty about this proposal was that it did not seem to meet the requirements of the case. So far as it went it was all very good, but in his opinion it did not go nearly far enough. If they were content to accept Dr. Ireland's proposal—that about 20 per cent. of the population should not be troubled with learning to read or write—then they did not need to enter further into the question. But he did not think they were either individually or as a section prepared to accept that delightful and sweeping proposition. The whole question of infant education was raised by the motion of Dr. Warner, and the only doubt he had was whether they could not give the inquiry a much wider scope. He thought there was nothing more monstrous or unphysiological than the present system of education. To take hold of children at that early age and compel them to attend school, cram them with information, and treat them as if they were so many sacks of the same size, all to be crammed chokeful to a certain limit, altogether irrespective of the elasticity of the sacks, was really an outrage on all that they knew about brain training. If it were possible to expand the work of the Committee, and get an authoritative report as to the evils of this system of education, they might do a deal of good. He was more sorry for the multitude of ordinary children who were injured and who were crammed in this miserable manner than he was for the comparatively small percentage of the manifestly defective children, whom any humane teacher would quickly find out. For that reason he was anxious to have the scope of the inquiry widened so as not only to include weak-minded children, but all ranks and conditions of brain development.

Dr. SHUTTLEWORTH seconded the motion very heartily, and it was unanimously adopted. The following names were placed on the Committee:—Drs.

Warner, Hack Tuke, Savage, Yellowlees, Fletcher Beach, Shuttleworth, Clouston, Conolly Norman, Ireland, and Brodie.

Dr. FLETCHER BEACH also supported the motion, and pointed out the value of the auxiliary schools that existed in some parts of the Continent.

ANOTHER BLOT ON THE BRAIN.

We are glad to find that Dr. Ireland is engaged on a work which will contain additional examples of historic personages who have been insane or eccentric. Swedenborg is a fascinating study, and this extraordinary man will form one of the studies in the forthcoming volume; Louis II. of Bavaria another; also Riel, Guiteau, and others whose acts have given rise to so much fierce discussion. We have no doubt Dr. Ireland will produce a book which will merit the success his former volume achieved.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

M.P.C. EXAMINATION.

NAMES OF CANDIDATES WHO PASSED THE EXAMINATION FOR THE CERTIFICATE OF EFFICIENCY IN PSYCHOLOGICAL MEDICINE, HELD AT BETHLEM ROYAL HOSPITAL, 20TH AND 21ST DECEMBER, 1888.

EXAMINERS:
GEORGE FIELDING BLANDFORD, M.D.
*HENRY RAYNER, M.D.

NATHAN RAW, M.B., B.S., Borough Asylum, Portsmouth.
JAMES CHAMBERS, M.D., M.Ch., Garlands, Carlisle.
JOHN CUMMING MACKENZIE, M.B., C.M. (Edin.), County Asylum, Morpeth.

Appointments.

ALEXANDER, JAS. WHITLOW, L.R.C.P., L.R.C.S.Edin., L.F.P.S. (Glas.), has been appointed Clinical Clerk to the West Riding Lunatic Asylum, Wakefield.

ALEXANDER, ROBERT REID, M.D. (Aberd.), has been appointed Medical Superintendent of the Male Department Hanwell Lunatic Asylum.

CALLCOTT, J. P., M.D., has been appointed Medical Superintendent of the Newcastle Borough Asylum.

FINUCANE, MORGAN, M.R.C.S., has been appointed Resident Clinical Assistant to the Birmingham Borough Asylum.

KAY, WALTER SMITH, M.D.Edin., M.R.C.S., has been appointed Medical Superintendent of the South Yorkshire Asylum, Wadsley, near Sheffield.

LEDWARD, H. P., M.R.C.S., L.S.A., has been appointed Junior Assistant Medical Officer to the Salop and Montgomery Asylum, Shrewsbury.

LIDDELL, JOHN, M.A., M.B., C.M.Edin., has been appointed Assistant Medical Officer at the James Murray's Royal Asylum, Perth.

LITTLE, ARTHUR NICHOLAS, M.R.C.S.Eng., L.S.A., has been appointed Senior Assistant Medical Officer, Holloway's Sanatorium, Virginia Water.

NIELSEN, FREDERICK WILLIAM, M.A. (Camb.), M.R.C.S., L.S.A., has been appointed Assistant Medical Officer to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, Lancaster.

RIGDEN, ALAN, L.R.C.P.Lond. and M.R.C.S., has been appointed Senior Assistant Medical Officer to the Salop and Montgomery Counties Asylum, Bicton Heath, Shrewsbury, *vice* Denning, resigned.

TURNER, ALFRED, M.B. and C.M.Edin., has been appointed Assistant Medical Officer to the West Riding Asylum, Menston, near Leeds.

WIGLESWORTH, JOSEPH, M.D.Lond., M.R.C.P., M.R.C.S.Eng., has been appointed Medical Superintendent of the Rainhill County Asylum.

WILSON, R. A., M.B., C.M.Edin., has been appointed Assistant Medical Officer of the Rubery Hill Asylum.

* Dr. HACK TUKE, in the absence of Dr. Rayner.

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